MANESS
ENVIRONMENTAL SERVICES, INC.

March 31, 1997

Maness Project No. 51298

Mr. Larry Donovan
Crown City Plating Co.
4350 Temple City Boulevard
El Monte, California 91731

RE: REPORT OF GROUNDWATER INVESTIGATION AT EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION, SAN GABRIEL VALLEY, LOS ANGELES COUNTY, CALIFORNIA

Dear Mr. Donovan:

Enclosed please find Maness Environmental Services, Inc. (Maness) final report for a groundwater investigation, completed at the above referenced site.

In order to complete the site investigation, Maness performed a groundwater investigation to characterize the groundwater quality associated with the El Monte Operable Unit in the San Gabriel Valley. The enclosed final report summarizes the results of all field investigation and laboratory analysis.

If you have any questions or require additional information, please feel free to call me at (562) 595-4555.

Sincerely,
Maness Environmental Services, Inc.

Gabriele Baader, REA
Project Manager

cc: Bella Dizon, U.S. Environmental Protection Agency
Art Heath, Regional Water Quality Control Board (Los Angeles Region)
Al Bragg, County of Los Angeles Department of Health Services
Kathryn Quinn, CH2MHILL

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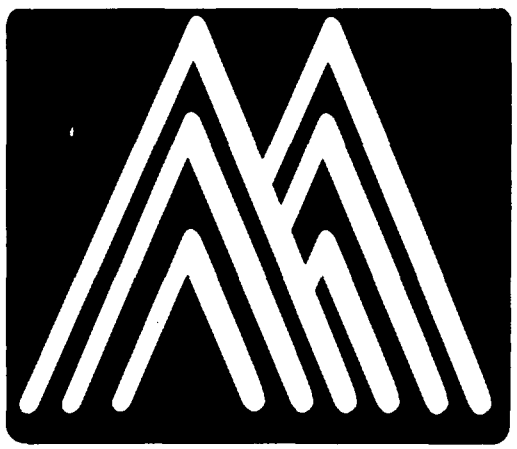
REPORT

GROUNDWATER INVESTIGATION
EL MONTE OPERABLE UNIT
SAN GABRIEL VALLEY
LOS ANGELES COUNTY, CALIFORNIA

MANESS PROJECT NO. 51298



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REPORT

GROUNDWATER INVESTIGATION
EL MONTE OPERABLE UNIT
SAN GABRIEL VALLEY
LOS ANGELES COUNTY, CALIFORNIA

MANESS PROJECT NO. 51298

Prepared For:

Crown City Plating Company
4350 Temple City Boulevard, El Monte, California 91731

Prepared By:

Maness Environmental Services, Inc.
1101 East Spring Street, Long Beach, California 90806

March 31, 1997

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EXECUTIVE SUMMARY

Maness Environmental Services, Inc. (Maness) completed a limited soil and groundwater investigation in El Monte and Rosemead, Los Angeles County, California for Crown City Plating Company at 4350 Temple City Boulevard in El Monte, California. This investigation assessed the soil and groundwater quality associated with the El Monte Operable Unit (OU) area in the San Gabriel Valley, Los Angeles County, California. This report is submitted pursuant to the May 31, 1995, Unilateral Administrative Order for Partial Remedial Investigation with Docket Number 95-17 (Unilateral Order), which was issued by the U.S. Environmental Protection Agency (EPA) to CCPC. The groundwater investigation was conducted pursuant to the requirements of the Unilateral Order.

Maness installed two groundwater monitoring wells in the southernmost portion of the El Monte OU. Soil and groundwater samples collected during the installation of the monitoring wells did not contain any targeted analytes above the maximum soil screening levels or the maximum contaminant levels for groundwater as outlined by the Los Angeles Regional Water Quality Control Board, April 1996, and the California Drinking Water Standards, 1994, respectively.

Maness recommends quarterly monitoring of the groundwater for the maximum of one year as defined in the Field Sampling Plan, prepared by Hargis & Associates, Inc., dated November 6, 1995. This would account for possible contaminant flow throughout the changing seasons.

1.0 INTRODUCTION

This Groundwater Investigation Report has been prepared by Maness Environmental Services, Inc. (Maness) on behalf of the Crown City Plating Company (CCPC) for the CCPC site located at 4350 Temple City Boulevard, El Monte, California (***Figure 1*** and ***Figure 2***). This report is submitted pursuant to the May 31, 1995, Unilateral Administrative Order for Partial Remedial Investigation with Docket Number 95-17 (Unilateral Order), which was issued by the U.S. Environmental Protection Agency (EPA) to CCPC. The groundwater investigation was conducted pursuant to the requirements of the Unilateral Order.

1.1 PURPOSE AND SCOPE OF WORK

In order to complete the groundwater investigation, Maness performed the following:

1. Installation of shallow monitor well MW2-3 in the City of Rosemead, CA.
2. Installation of shallow monitor well MW2-4 in the City of El Monte, CA.
3. Groundwater investigation to characterize the lateral and vertical distribution of volatile organic compounds (VOCs) in the vicinity of the monitor wells.
4. Final report summarizing the results of all field investigation and laboratory analysis.

The objective of installing shallow monitor wells MW2-3 and MW2-4 was to provide data to assess aquifer characteristics, groundwater flow direction and chemical quality of groundwater at the water table at and in the vicinity of the monitor wells. Data obtained from these wells will be used to characterize the distribution of VOC concentrations in shallow groundwater.

The construction of these monitor wells was required because limited data are available regarding VOC concentrations in shallow groundwater in the southernmost portion of the El Monte Operable Unit (OU). The new data will be used to evaluate the extent of downgradient migration of VOCs from the El Monte OU.

1.2 BACKGROUND

The CCPC is located in an industrial area in the western section of the City of El Monte, Los Angeles County, California. CCPC is located north of Valley Boulevard, south of Lower Azusa Road, east of Temple City Boulevard and west of Baldwin Avenue. The site occupies approximately 13 acres of land. Most of the site is owned by CCPC, the southernmost portion of the site is owned by Southern-Pacific Transportation Company (Southern-Pacific) and leased to CCPC. The site is located at the El Monte Operable Unit within the San Gabriel Valley Area 1 Superfund Site, as defined by EPA.

CCPC has operated a metal plating facility at the site since 1956. In 1977, CCPC leased a portion of the site from Southern-Pacific. Chemicals historically used at the site, as documented by EPA, included 1,1,1-Trichloroethane (1,1,1-TCA), toluene, wash thinner, cutting oil, sulfuric acid, nitric acid and sodium hydroxide.

VOCs have been detected at concentrations exceeding maximum contaminant levels (MCLs) in groundwater and in the San Gabriel Valley since 1979. In May 1984, the EPA assigned four areas of contamination located within the San Gabriel Valley to the National Priorities List. The CCPC is located within the El Monte Operable Unit, which is within an EPA Remedial Investigation Area where groundwater clean-up efforts currently are being focused.

Based on the analytical results of previous groundwater and soil investigations of areas in the vicinity of the site, several potentially hazardous chemical compounds have been identified: Trichloroethylene (TCE), perchloroethylene (PCE), 1,1-dichloroethylene (1,1-DCE) and 1,1,1-TCA.

In May 1990, the EPA issued a Notice of Potential Liability for the San Gabriel Valley Superfund sites to CCPC. In March 1995, the EPA submitted a Statement of Work to the Northwest El Monte Community Task Force as a basis for implementing an interim Remedial Investigation/Feasibility Study (RI/FS). This Statement of Work included specific locations for new monitor wells to be installed as part of the overall interim RI/FS. A Special Notice was issued to CCPC on October 7, 1994.

On May 31, 1995, EPA issued a Unilateral Order to CCPC to independently sponsor the development and testing of two shallow groundwater monitor wells included in the original Statement of Work submitted to the Northwest El Monte Community Task Force.

2.0 FIELD ENGINEERING

2.1 SOIL BORINGS

EPA determined the locations for the monitor wells as follows: MW2-3 in the City of Rosemead at the intersection of North Vane Avenue and Olney Street, a residential area (single family homes), MW2-4 in the City of El Monte at the intersection of Gibson Road and Olney Street, a residential and light industrial area (single family homes, apartment buildings and light industrial businesses). See ***Figure 2*** for the locations of the monitor wells.

Upon selection of the location for the groundwater monitor wells by the EPA, Maness submitted applications for the installations to the County of Los Angeles Department of Health Services and to the Cities of El Monte and Rosemead. The permits were granted by early February 1997 (***Appendix A*** - County and City Permits) and Underground Service Alert notified to determine whether any underground utilities were obstructing the well locations.

Once the locations were cleared of underground utility lines, Maness mobilized to MW2-4 in El Monte on February 6, 1997 and MW2-3 in Rosemead on February 14, 1997. Maness used a conventional hollow-stem auger drill rig (BC^2 Environmental of Fullerton, California) with a 10-inch diameter auger.

The drilling and completion of each monitor well was supervised by a California Registered Geologist responsible for the collection of lithologic and hydrogeologic data, selection of screened intervals, screen slot size and filter pack size, and determination of final well depth.

2.1.1 METHODOLOGY OF SOIL SAMPLE COLLECTION

Maness collected soil samples from borings MW2-3 and MW2-4 with the hollow-stem auger drill rig. We collected undisturbed soil samples in 2x6-inch brass sleeves at five feet intervals using drive sampling techniques with a modified California split-spoon sampler. A Maness geologist used the soil from the upper sample ring to describe lithology in accordance with the Unified Soil Classification System (USCS) and submitted the lower sample for possible laboratory analysis. In addition, soil grab samples from the auger cuttings were collected for lithologic description. A portion of each soil sample was screened in the field using an organic vapor analyzer (OVA).

According to Hargis & Associates, Inc. Field Sampling Plan, dated November 6, 1995, the depth to groundwater in the El Monte OU area was estimated at 70 to 100 feet below grade (ft bg) and continuous core sampling was required from the saturated zone. During drilling operations for MW2-4 in El Monte, Maness encountered groundwater at 35 ft bg. In order to determine whether this depth is the actual groundwater table, Maness

continued drilling to 55 ft bg, collecting soil samples at five feet intervals. During drilling operations for MW2-3 in Rosemead, Maness anticipated the depth to water at 35 ft bg and collected undisturbed, continuous core samples from the saturated zone. Soil samples collected from the saturated zone in both borings were submitted to NorCal Engineering in Los Alamitos, California for sieve analysis.

All downhole drilling equipment was steam-cleaned prior to commencing drilling operations and between monitor well locations. Before commencing, and between each sample, Maness thoroughly decontaminated all sampling equipment using a non-phosphate detergent followed by rinsing with tap water and then distilled water. Upon recovering the samples, Maness immediately sealed the samples with Teflon tape and plastic end caps. We then labeled the samples and quickly placed them in an ice chest until delivered to a state certified laboratory for analysis. Maness followed proper chain-of-custody procedures to ensure the integrity of all samples being submitted for testing. The soil boring logs and sieve analyses have been included in ***Appendix B***.

2.2 GROUNDWATER MONITORING WELL INSTALLATION

On February 6 and 14, 1997, Maness supervised the installation of two groundwater monitoring wells (MW2-4 and MW2-3, respectively, see ***Figure 2***) at the subject site. BC^2 Environmental of Fullerton, California used a CME 75 drilling rig to advance 10-inch outside diameter hollow stem augers to well completion depths of 55 ft bg. During drilling of the monitoring wells, Maness encountered groundwater at approximately 35 ft bg.

Two criteria were used to determine the location of screen placement: (1) lithology and (2) indications of potential contamination. According to the soil sampling data and the sieve analysis the lithology of the saturated zone is fairly uniform, with MW2-3 containing more fines than MW2-4. Field screening with the OVA did not indicate any detectable VOC contamination.

Prior to initiating well installation, Maness contacted Bella Dizon with the EPA and Arthur Heath with the Los Angeles Regional Water Quality Control Board for approval of the design for the screen slot size. The soil in the saturated zone of MW2-3 contained more fines than MW2-4 and therefore required a different screen slot size.

Both monitoring wells were constructed using 4-inch diameter schedule 40 polyvinyl chloride (PVC) casing and screen. Monitor well MW2-3 in the City of Rosemead was constructed using 25 ft of blank casing and 30 ft of 0.010 inch slotted well screen, and is sand packed with Silicate Monterey No. 2/16 Sand. Monitor Well MW2-4 in the City of El Monte was constructed using 25 ft of blank casing and 30 ft of 0.020 inch slotted well screen, and is sand packed with Silicate Monterey No. 3 Sand.

Prior to placing the annular seal, the drillers used a two gallon steel bailer and a four-inch surge block to develop the well. After surging the well for approximately 10 minutes, Maness purged a minimum of four well volumes from each well (approximately 50 gallons each).

Upon completion of the initial well development activities, Maness supervised the installation of the annular seal. The annular seal was constructed of volclay grout. A two feet enviroplug bentonite seal separates the grout from concrete at the top and the sand at the bottom. Maness completed the well surface with a flush mounted traffic rated well box set in concrete. ***Figure 3*** and ***Figure 4*** are monitoring well construction diagrams for well MW2-3 and MW2-4, respectively.

The monitor wells were constructed in accordance with the requirements of the County of Los Angeles Department of Health Services and the California Department of Water Resources Guidelines.

Soil cuttings were collected in one 8 cubic yard roll-off bin, decontamination and purge water was collected in 55 gallon DOT approved drums. All of the soil cuttings, decontamination and purge water generated during the installation, development and sampling of the monitor wells were transported to TPS Technologies (4 tons of soil) in Adelanto, California, and to Crosby & Overton, Inc. (380 gallons of water) in Long Beach, California, for recycling. The non-hazardous waste manifests are included in *Appendix C*.

2.2.1 Groundwater Well Development and Sampling

On February 11 and 18, 1997, a Maness geologist completed the final well development of MW2-4 and MW2-3, respectively. A portable stainless steel Grundfos environmental electric submersible pump with dedicated teflon-lined sample tubing was temporarily installed in each monitor well. Approximately four to five well volumes were purged and water quality parameters measured until stabilization.

On February 20 and 28, 1997 (within approximately 14 days after well installation), a Maness geologist collected the initial round of groundwater samples from monitor wells MW2-4 and MW2-3, respectively. Prior to purging and sampling, the depth to groundwater in the monitor wells was measured using a Solinst electric sounding tape to determine the static water level and hydraulic direction and gradient. This tape is specifically designed for use in sounding groundwater monitoring wells.

A Maness geologist purged the wells using a portable stainless steel Grundfos environmental electric submersible pump prior to the collection of the groundwater samples. During the purging of each well, we periodically measured groundwater characteristics and documented for pH levels, temperature, conductivity, turbidity and pump rate readings (*Appendix D* - Groundwater Sampling Logs). After the removal of

approximately four to six times the well casing volume of water, we allowed enough time for the groundwater to recharge to at least 80% of the measured static water level prior to the collection of water samples.

As required by the EPA, Maness recovered groundwater samples with a non-dedicated portable stainless steel Grundfos electric submersible pump and dedicated teflon-lined sample tubing. The appropriate containers, organic-free water and trip blanks were obtained from the laboratory. The groundwater samples were collected from the pump discharge tubing and transferred into 40 ml VOA vials. The vials were labeled, sealed with custody seals and immediately placed on ice in a cooler until submitted to a state-certified laboratory for analysis (BC Analytical of Glendale, California). We completed chain-of-custody procedures to ensure the quality of the samples being submitted for analysis (see ***Appendix E*** and ***Appendix F***).

According to EPA Quality Assurance/Quality Control requirements, we collected one duplicate groundwater sample from monitor well MW2-3 in Rosemead, and one duplicate, one rinsate blank and one trip blank from monitor well MW2-4 in El Monte.

Maness followed standard sampling procedures as outlined in the Field Sampling Plan by Hargis & Associates, Inc., dated November 6, 1995. The Grundfos pump was decontaminated prior to each use by submerging in a non-phosphate detergent and tap water solution and rinsed by pumping approximately 10 pump volumes of tap water through the mechanism. The exterior of the pump was rinsed with distilled water. All liquids generated during purging were recovered into 55 gallon DOT approved drums and transported to Crosby & Overton, Inc. in Long Beach, California, for recycling (***Appendix C***).

3.0 LABORATORY TESTING

3.1 METHOD OF ANALYSIS

Maness collected, maintained, prepared and analyzed all soil and groundwater samples according to Test Methods for Evaluating Solid Waste, (SW-846), Third Edition, Update #2, November 1990. These methods, as prescribed by the Environmental Protection Agency (EPA), provide test procedures which determine whether the sample is a hazardous waste.

BC Analytical Laboratories of Glendale, California, analyzed the soil samples for Title 22 CAM Metals using EPA Methods 6010, 7060, 7471 and 7740, total recoverable petroleum hydrocarbons (TRPH) using EPA Method 418.1 and volatile organic compounds (VOCs) using EPA Method 8260. Additionally, groundwater samples were analyzed for volatile organics by using EPA method 8021A.

3.2 CLEAN-UP CRITERIA

Clean-up levels for CAM Metals, TRPH and VOCs in soil are as shown in ***Table 1*** - Summary of Soil Sample Laboratory Analysis.

Clean-up levels for volatile organics in groundwater are based on the California Drinking Water Standards (***Table 2*** - Summary of Groundwater Laboratory Analysis). They are as follows:

- Toluene = 150 parts per billion (ppb)
- Tetrachloroethene = 5 ppb
- m- and p-Xylene Isomers = 1,750 ppb

Chloroform is unregulated, however, monitoring is required based on the California Drinking Water Standards.

3.3 SOIL SAMPLE ANALYTICAL RESULTS

Soil samples collected from Monitoring Wells MW2-3 (February 14, 1997) and MW2-4 (February 6, 1997) indicated low levels of CAM Metals and TRPH as shown in ***Table 1***. However, these levels are well below the clean-up levels and additionally, Maness did not detect any volatile organics with the field OVA which was verified with the laboratory analysis. The laboratory reports and chain-of-custody logs have been included in *Appendix E*.

TABLE 1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYSIS
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA
SAMPLE DATES - 02/6 & 14/97

Analytes	*EPA Method*	*MW2-3 Bin (ppm)*	*MW2-4 Bin (ppm)*	*Detection Limit (ppm)*	*TTLC (ppm)*	*MSSLs (ppm)*
Arsenic	7060	2.3	2.7	NA	500	NA
Antimony	6010	ND	ND	10	500	NA
Barium	6010	29	66	NA	10,000	NA
Beryllium	6010	0.13	0.69	NA	75	NA
Cadmium	6010	ND	20	0.5	100	NA
Chromium	6010	7.7	17	NA	500	NA
Cobalt	6010	4.3	11	NA	8,000	NA
Copper	6010	8.7	28	NA	2,500	NA
Lead	6010	ND	10	5	1,000	NA
Mercury	7471	ND	0.10	0.1	20	NA
Molybdenum	6010	ND	ND	2	3,500	NA
Nickel	6010	5.7	10	NA	2,000	NA
Selenium	7740	ND	ND	0.4	100	NA
Silver	6010	ND	ND	1	500	NA
Thallium	6010	ND	ND	7	700	NA
Vanadium	6010	13	46	NA	2,400	NA
Zinc	6010	26	54	NA	5,000	NA
TRPH	418.1	ND	33	10	NA	1,000
VOCs	8260	ND*	ND*	varies	NA	varies

Notes:
TTLC = Total Threshold Limit Concentration Values
MSSLs = Maximum Soil Screening Levels, RWQCB, April 1996
ppm = parts per million (mg/l)
NA = not analyzed/not applicable
ND = not detected at or above laboratory detection limits stated in official laboratory reports
TRPH = Total Recoverable Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds
* = all analytes are ND at or above laboratory detection limits stated in official laboratory reports

3.4 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Groundwater analytical results in the original, duplicate and trip blank from monitor well MW2-4 (February 20, 1997) did not detect any volatile organics at or above the laboratory detection limits stated in the official laboratory reports. The rinsate blank contained 0.86 ppb dibromochloromethane. According to the laboratory, dibromochloromethane is a very common additive to tap water, which was used to rinse the sampling equipment. However, results for monitor well MW2-3 (February 28, 1997) indicated levels of toluene (1.2 ppb, duplicate 1.2 ppb), tetrachloroethene (1.1 ppb, duplicate 1.1 ppb) and m- and p-Xylene Isomers (0.95 ppb, duplicate 0.95 ppb) which are above the MCLs. Chloroform (1.3 ppb, duplicate 1.2 ppb) was also detected, however, this analyte is unregulated by the California Drinking Water Standards, requiring only monitoring.

Figure 2 is a site map showing the groundwater monitor well locations with a summary of the sample analytical results. ***Table 2*** summarizes the groundwater analytical results. The laboratory reports and chain-of-custody documents for the groundwater sampling have been included in ***Appendix F.***

TABLE 2
SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA
SAMPLE DATES - 02/20 & 28/97

Analytes	*EPA Method*	*MW2-3 (ppb)*		*MW2-4 (ppb)*				*Detection Limit (ppb)*	*MCLs (ppb)*
		Original	Dup.	Original	Dup.	Rinsate Blank	Trip Blank		
Chloroform	8021A	1.3	1.2	ND	ND	ND	ND	0.5	Unregulated*
Dibromochlomethane	8021A	ND	ND	ND	ND	0.86	ND	0.5	Unregulated*
Toluene	8021A	1.2	1.2	ND	ND	ND	ND	0.5	150
Tetrachloroethene	8021A	1.1	1.1	ND	ND	ND	ND	0.5	5
m- and p-Xylene Isomers	8021A	0.95	0.95	ND	ND	ND	ND	0.5	1,750

Notes: MCLs = Maximum Contaminant Levels, California Drinking Water Standards, 1994
ppb = parts per billion (µg/L)
Dup. = duplicate
ND = not detected at or above laboratory detection limits stated in official laboratory reports
* = monitoring required, California Drinking Water Standards, 1994
All other analytes are ND at or above laboratory detection limits stated in official laboratory reports

4.0 SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located in the northeastern block portion of the Los Angeles Basin. The northeastern block is situated between the Whittier fault zone and the base of the San Gabriel Mountains and is separated from the northwestern block by the Raymond Hill fault. This block is a deep synclinal basin that contains mostly marine Cenozoic sedimentary rocks, but includes some thick Miocene volcanic rocks in the east. The basement lies as much as 12,000 feet below the surface in the central part of the San Gabriel Valley, and in the eastern Puente Hills more than 22,000 feet of Cenozoic sedimentary rock covers the basement (from: *Geology of California, Robert M. Norris and Robert W. Webb, 1990*).

The subject site overlies alluvial sediments consisting of mainly moderate yellowish brown, medium- to coarse-grained sand to very dark grayish brown, fine-grained silty sand. The grain size was confirmed with a sieve analysis (***Appendix B*** - Soil Boring Logs). The surrounding topography is consistently flat.

According to the Los Angeles County Department of Public Works (DPW) hydrologic records, the first recorded groundwater for the surrounding area as of April 30, 1996, is approximately 37.8 feet below land surface with a ground surface elevation of approximately 256.5 feet above mean sea level (MSL) (DPW Well 2942G, located at the intersection of Flair Drive and Strang Avenue, approximately ¼ mile southeast of monitor well MW2-3 and ¼ mile southwest of monitor well MW2-4).

Maness encountered groundwater at monitor wells MW2-3 and MW2-4 at 34.95 and 37.10 feet below surface, respectively, during the field investigation. In order to determine the exact depth to groundwater with respect to mean sea level, Gilbert Engineering of Cypress, California, surveyed the top of each well casing on February 21, 1997 (***Appendix G*** - Well Survey Results).

5.0 CONCLUSIONS AND RECOMMENDATIONS

Maness has completed a limited soil and groundwater investigation in El Monte and Rosemead, Los Angeles County, California for Crown City Plating Company at 4350 Temple City Boulevard in El Monte, California. This investigation assessed the soil and groundwater quality associated with the El Monte Operable Unit (OU) area in the San Gabriel Valley, Los Angeles County, California. This report is submitted pursuant to the May 31, 1995, Unilateral Administrative Order for Partial Remedial Investigation with Docket Number 95-17 (Unilateral Order), which was issued by the U.S. Environmental Protection Agency (EPA) to CCPC. The groundwater investigation was conducted pursuant to the requirements of the Unilateral Order.

Maness installed two groundwater monitoring wells in the southernmost portion of the El Monte OU. Soil and groundwater samples collected and analyzed during the installation of the monitoring wells did not contain any targeted analytes above the maximum soil screening levels or the maximum contaminant levels for groundwater as outlined by the Los Angeles Regional Water Quality Control Board, April 1996, and the California Drinking Water Standards, 1994, respectively.

No volatile organic compounds above the laboratory detection limits were detected in groundwater samples analyzed from monitor well MW2-4, located in El Monte. Groundwater samples analyzed from monitor well MW2-3, located in Rosemead, contained 1.3 ppb chloroform, 1.2 ppb toluene, 1.1 ppb tetrachloroethene and 0.95 ppb m- and p-xylenes.

Maness recommends quarterly monitoring of the groundwater for the maximum of one year as defined in the Field Sampling Plan, prepared by Hargis & Associates, Inc., dated November 6, 1995. This would account for possible contaminant flow throughout the changing seasons.

5.1 LIMITATIONS

Maness Environmental Services, Inc., performs professional services using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings are based primarily upon analytical results provided by an independent laboratory. Interpretations of the subsurface conditions at the site, for the purpose of this investigation, are made from a limited number of available data points (example: soil samples) and subsurface conditions may be different in other locations. No warranty, expressed or implied, is made as to the professional recommendations in our reports.

Maness appreciates the opportunity to provide environmental management services for Crown City Plating Co. If you have any questions regarding the report or require additional information, please call us at (562) 595-4555.

Sincerely,

Maness Environmental Services, Inc.

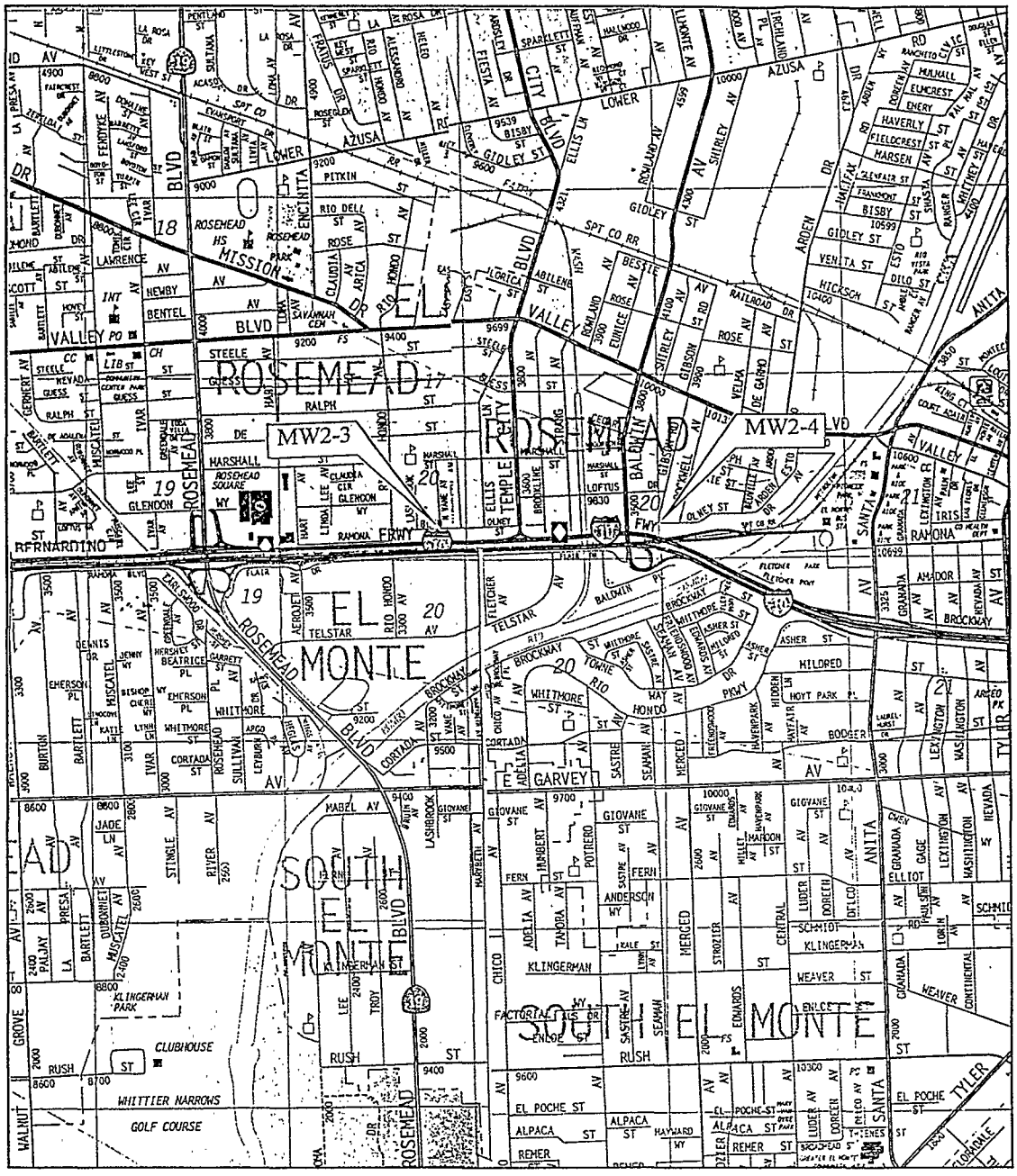
Gabriele Baader, REA
Project Manager

Gary Runnells, RG, REA
Manager, Remediation Services

REGISTERED GEOLOGIST
GARY RUNNELLS
No. 5413
Exp. 2.28.99
STATE OF CALIFORNIA

REGISTERED ENVIRONMENTAL ASSESSOR
GARY RUNNELLS
No. REA
Expires: 6-30-97

FIGURES



REFERENCE:

Thomas Bros. Maps
The Thomas Guide, 1997
Los Angeles/Orange Counties
p. 596, J-7; 597, A-7

FIGURE 1
VICINITY MAP

El Monte Operable Unit
San Gabriel Valley
Los Angeles County, California

N

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~3,000 FEET

MONITORING WELL MW2-3
EL MONTE, CA

MW2-3
WELL BOX ELEV. = 257.045'
DEPTH TO GW = 34.95'
GW ELEV. = 222.095'

CHLOROFORM = 1.3 PPB
TOLUENE = 1.2 PPB
TETRACHLOROETHENE = 1.1 PPB
M- & P-XYLENE ISOMERS = 0.95 PPB
ALL OTHER VOLATILE ORGANICS = ND

SINGLE FAMILY RESIDENCES

NORTH VANE AVENUE

SINGLE FAMILY RESIDENCES

OLNEY STREET

SINGLE FAMILY RESIDENCES

MONITORING WELL MW2-4
ROSEMEAD, CA

SINGLE FAMILY RESIDENCES

GIBSON ROAD

APARTMENT BUILDING

OLNEY STREET

SINGLE FAMILY RESIDENCES

BUSINESS

MW2-4
WELL BOX ELEV. = 264.30'
DEPTH TO GW = 37.10'
GW ELEV. = 227.20'

VOLATILE ORGANICS = ND

NOTES: 1. PPB = PARTS PER BILLION (UG/L)
2. ND = NON DETECT AT OR ABOVE LABORATORY DETECTION LIMITS STATED IN OFFICIAL LABORATORY REPORTS
3. VOLATILE ORGANICS WERE ANALYZED WITH EPA METHOD 8021A

N

0 30 60
APPROXIMATE SCALE IN FEET

PROJECT NO.: 51298
DATE: 03/31/97

DRAWN BY: C. YONG
CHECKED BY: G. BAADER
APPROVED BY: G. RUNNELLS

FIGURE 2

SITE MAP WITH GROUNDWATER MONITOR WELL LOCATIONS
EL MONTE OPERABLE UNIT, SAN GABRIEL VALLEY
LOS ANGELES COUNTY, CALIFORNIA

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A DIVISION OF
MANESS INDUSTRIES
1161 EAST SPRING STREET, P.O. BOX 719, LONG BEACH, CA. 90807-0917
CONTRACTOR LICENSE NO 553613 (310) 595-4555 FAX (310) 402-6405

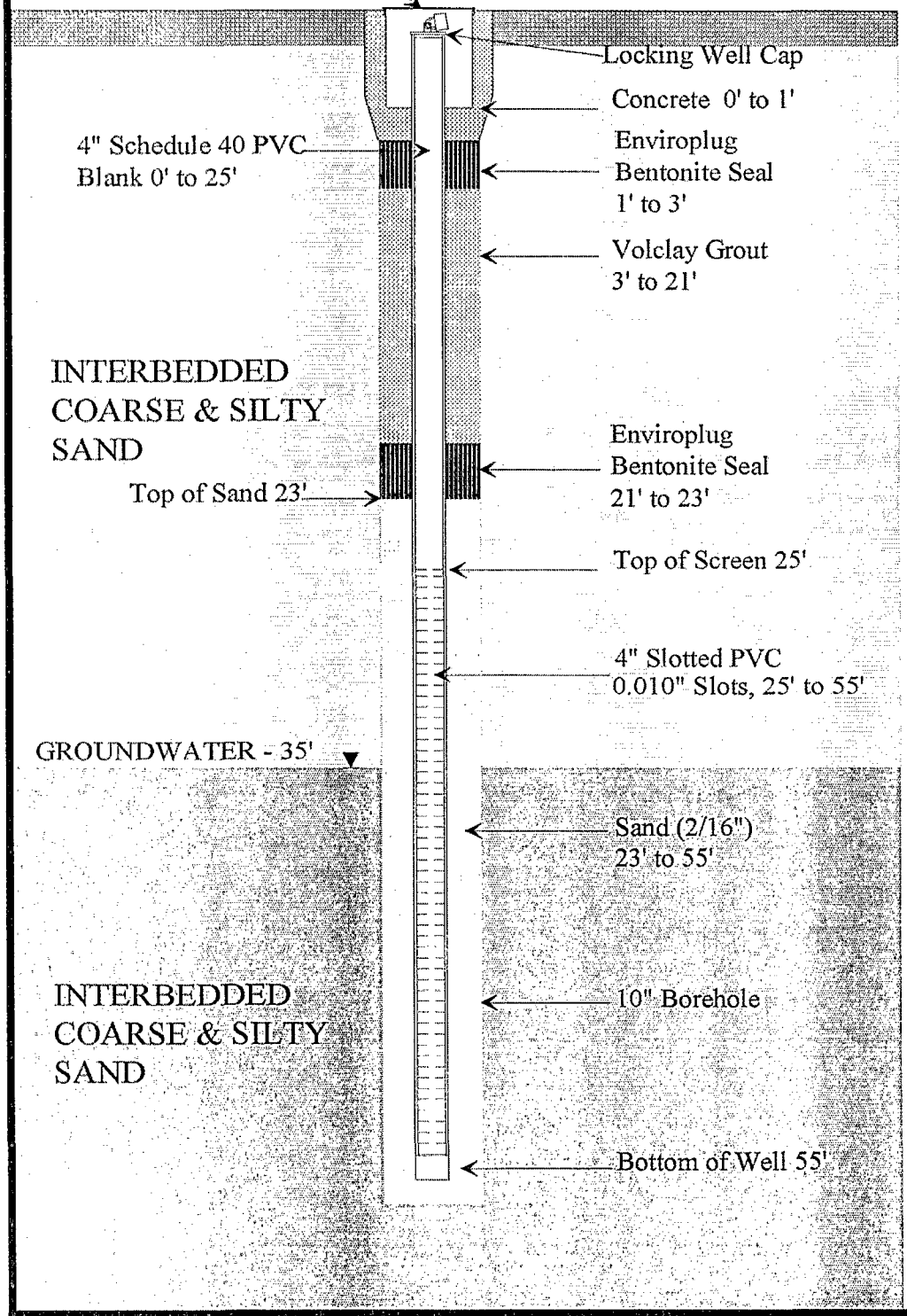

FIGURE 3

MONITORING WELL MW2-3 CONSTRUCTION DESIGN

SITE LOCATION

North Vane Avenue & Olney Street
Rosemead, CA

PROJECT #: 51298

DATE: 02/14/97

NOT TO SCALE

Drawn By: Cyril Yong
Checked By: Gabriele Baader
Approved By: Gary Runnells

MANESS
ENVIRONMENTAL SERVICES, INC.
A DIVISION OF
MANESS INDUSTRIES
1101 EAST SPRING STREET, P O BOX 719, LONG BEACH, CA 90807-0717
CONTRACTOR LICENSE NO 553633 (310) 595-4555 FAX (310) 492-5495

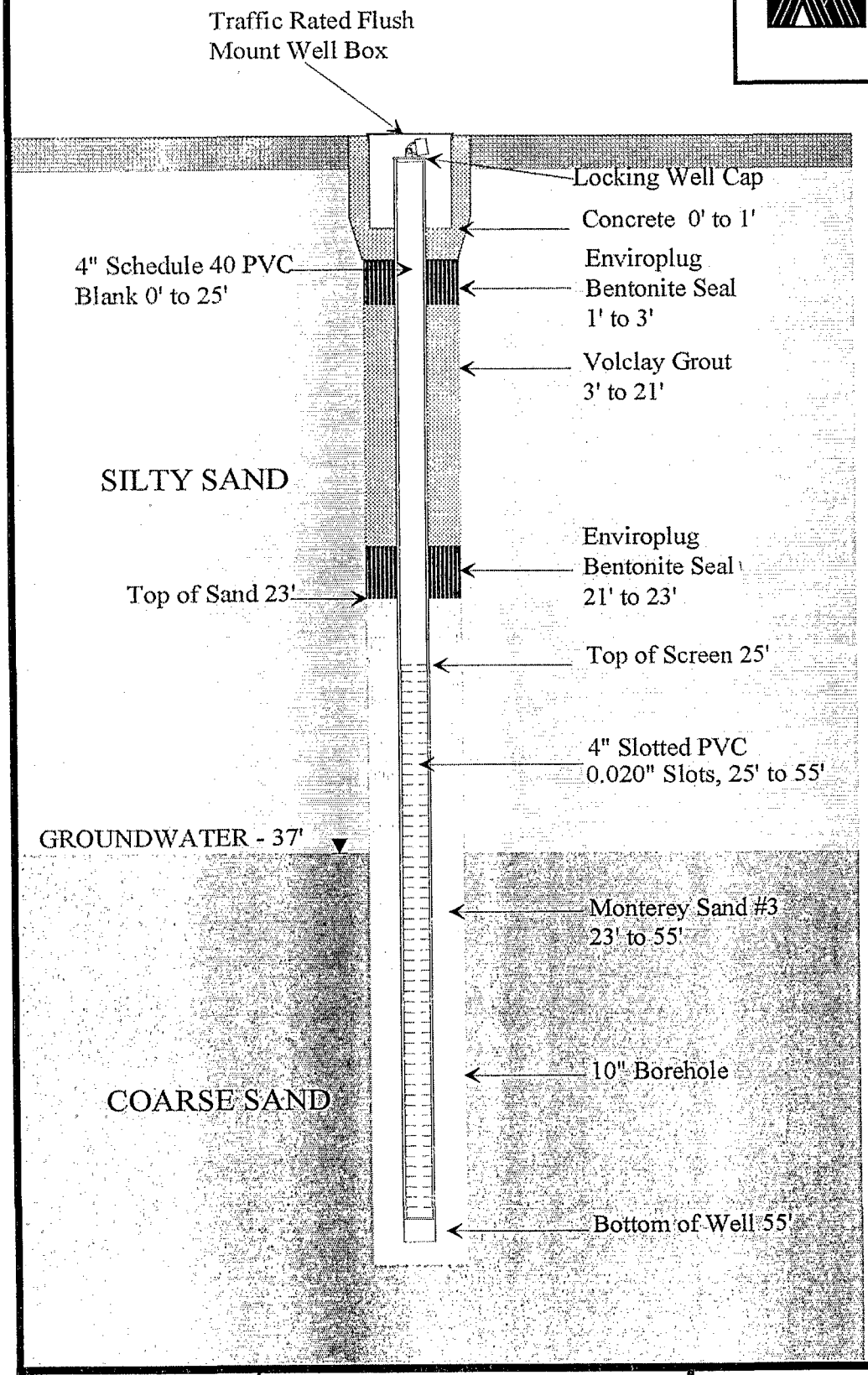

FIGURE 4

MONITORING WELL MW2-4 CONSTRUCTION DESIGN

SITE LOCATION

Gibson Road & Olney Street,
El Monte, CA

PROJECT #: 51298

DATE: 02/06/97

NOT TO SCALE

Drawn By: Cyril Yong
Checked By: Gabriele Baader
Approved By: Gary Runnells

APPENDIX A

COUNTY AND CITY PERMITS

APPLICATION FOR WELL PERMIT
ENVIRONMENTAL HEALTH 2525 Corporate Place Monterey Park, Ca 91754
COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES

DATE 12-10-1996

DESCRIPTION

TYPE OF PERMIT (CHECK)
- [X] NEW WELL CONSTRUCTION
- [ ] RECONSTRUCTION OR RENOVATION
- [ ] DESTRUCTION

TYPE OF WELL
- [ ] PRIVATE DOMESTIC
- [ ] PUBLIC DOMESTIC
- [ ] IRRIGATION
- [X] OBSERVATION/MONITORING
- [ ] CATHODIC
- [ ] INDUSTRIAL
- [ ] GRAVEL PACK
- [ ] TEST

TYPE OF CASING
4- INCH Ø PVC WELL CASING, 0.020-INCH PVC FACTORY SLOTTED WELL SCREEN; FILTER PACKED W/ #3 SAND

METHOD OF SEALING OF CASING
BENTONITE / GROUT

METHOD OF DESTRUCTION

LOCATION

ADDRESS (NUMBER, STREET, AND NEAREST INTERSECTION)
CORNER OF OLNEY + RIO HONDO IN ROSEHEAD AND

CITY El Monte

DIAGRAM (SHOW PROPERTY LINES, STREET, ADDRESS, WELL SITE, SEWERS, AND PRIVATE SEWAGE DISPOSAL SYSTEMS ALONG WITH LABELS AND DIMENSIONS)
CORNER OF BALDWIN + LOFTUS IN EL MONTE

Permit to Install (2) MW's

APPLICANT

NAME OF WELL DRILLER (PRINT)
KURT SAMUELSON

TRADE NAME
BC2 ENVIRONMENTAL CORP.

BUSINESS ADDRESS
1835 E. DAWNS WAY, STE B, FULLERTON CA 92831

CITY

NAME OF WELL OWNER (PRINT)
CROWN CITY PLATING COMPANY

MAILING ADDRESS
4350 TEMPLE CITY BLVD

CITY
EL MONTE, CA. 91731

I hereby agree to comply in every respect with all regulations of the County Preventive/Public Health Services and with all ordinances and laws of the County of Los Angeles and of the State of California pertaining to well construction, reconstruction and destruction. Upon completion of well and within ten days thereafter, I will furnish the County Preventive/Public Health Services with a complete log of the well, giving date drilled, depth of well, all perforations in casing, and any other data deemed necessary by such County Preventive/Public Health Services.

Applicant's Signature

DISPOSITION OF APPLICATION: (For Sanitarians Use Only)
- [X] APPROVED
- [ ] DENIED
- [ ] APPROVED WITH CONDITIONS

If denied or approved with conditions, report reason or conditions here:

DATE

SANITARIAN

DATE 12/06/96

SECTION CHIEF Albert P. Causey

When signed by Section Chief, this application is a permit.

78A668
H-13 (Rev. 3 91)

APPLICANT

Please Return All Copies

SERV[illegible] APPLICATION AND FEE COLLE[illegible]ON
COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES
PUBLIC HEALTH PROGRAMS - ENVIRONMENTAL HEALTH
SERVICE REQUEST APPLICATION

INSTRUCTIONS

1. Check the TYPE OF SERVICE requested and attach the required non-refundable fee to the application. Make money order or check payable to LOS ANGELES COUNTY TREASURER, DO NOT SEND CASH. This application is nontransferable.

FEE REQUIRED*		TYPE OF SERVICE
$266.00	☒	MONITORING WELL CONSTRUCTION/DESTRUCTION
	☐	WELL CONSTRUCTION, RENOVATION OR DESTRUCTION PERMIT Complete and attach a Well Permit Application
	☐	PRIVATE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT
	☐	PRIVATE SEWAGE DISPOSAL SYSTEM RENOVATION/EXPANSION
	☐	INSPECTION OF MOUNTAIN CABIN SITE as required by the United States Forest Service
	☐	INSPECTION OF EXISTING PRIVATE SEWAGE SYSTEM as required by FHA/VA
	☐	WATER SUPPLY TEST AND CERTIFICATION as required by U.S. Department of Agriculture

2. Check with Contact Office stamped below for requirements or information.
3. Complete the required information or deliver the completed application, money order or check with the forms indicated.

to: County of Los Angeles
Department of Health Services
Public Health Programs
Environmental Health
2525 Corporate Place
Monterey Park, Ca 91754
(213) 881-4147

* Refer to Schedule of Fees for current fiscal year.

NOTE: FIELD PERSONNEL CANNOT ACCEPT FEES.

4. Phone Contact Office noted below, after you have received your receipt, to request an inspection.

Corner of Olney + Rio Hondo in Rosemead + Baldwin - Loftus in El Monte
Service/Job Location Address — Date

Crown City Plating Co. 4350 Temple City Blvd El Monte, CA 91731
Owner/Applicant's Name / Address — Phone No. 818-444-[illegible]

Hinness Env. Services, 1101 E. Spring St. Long Beach, CA 90806
Contractor's Name — Address — Phone No. 310-575-[illegible]

Co. Engineer Plan Check No.____ Tract No. ____ Lot No. ____ No. Bedrooms ____
(Complete line above for Private Sewage Disposal System Construction or Renovation Application)

CONTACT OFFICE	DEPARTMENT STAMP
	FEE PAID [illegible] 96 RC Check # 542 Receipt # 553739

76S379 - H2124 (Rev. 3/91) 2-93 WHITE: CHIEF COPY CANARY: APPLICANT COPY PINK: SENIOR COPY

COUNTY OF LOS ANGELES | DEPARTMENT OF HEALTH SERVICES

RECEIPT/RECIBO

- [ ] HARBOR-UCLA MEDICAL CENTER
- [ ] R. HO LOS AMIGOS MEDICAL CENTER
- [ ] HIGH DESERT HOSPITAL
- [ ] LAC-USC MEDICAL CENTER
- [ ] KING/DREW MEDICAL CENTER
- [x] PUBLIC HEALTH
- [ ] OLIVE VIEW MEDICAL CENTER

SPECIFY: Water & Sewage

ANY ALTERATION OR ERASURE RENDERS RECEIPT VOID
CUALQUIER ALTERACION O BORRON HACE ESTE RECIBO NULO

DATE: 12/10/96

RECEIVED FROM: Harless Environmental Serv | $ 266.00

THE AMOUNT OF: Two Hundred Sixty Six and 00/100

- [ ] CASH
- [ ] MONEY ORDER #
- [x] CHECK # 5422
- [ ] VISA
- [x] ~~MASTER CARD~~ Credit Card # 122003516-0239-(3367)

PATIENT NAME: Permit to install (2) monitoring wells

PF #

ACCOUNT NO.

DATE(S) OF SERVICE

PAYMENT RECEIVED FOR: [ ] MEDICAL SERVICES [ ] PHARMACY

MISCELLANEOUS: Permit to install (2) MW's @ Olney & Rio Hondo & Baldwin & Loftus El Monte

RECEIVED BY: [signature]

No. 559368

HS-65 76C5OR (9/90) 2/96

1997

CITY OF ROSEMEAD

TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL

PUBLIC RIGHT-OF-WAY ENCROACHMENT PERMIT

(El Monte Operable Unit: Crown City Plating and Maness Environmental Services, Inc.)

THE CITY OF ROSEMEAD, CALIFORNIA (the "City") hereby issues this temporary off-site groundwater monitoring well public right-of-way encroachment permit (the "Permit") to the private entity Crown City Plating Co. a California Corporation and Maness Environmental Services, Inc., jointly and severally (collectively the "Permit Holder") as of February 11, 1997, subject to the conditions described below, for the purpose of installing and thereafter operating and maintaining a temporary off-site groundwater monitoring well (the "Well") within portions of the public street right-of-ways of the City as more specifically described below.

CONDITIONS OF PERMIT

A. This Permit is issued to the Permit Holder to satisfy certain undertakings and commitments relating to the Well which arise under an Unilateral Administrative Order 95-017, dated May 31, 1995, by the United States Environmental Protection Agency (the "USEPA") to Crown City Plating Co. A copy of the UAO and all attachments and supplements thereto, including the document entitled "Statement of Work El Monte Operable Unit Interim Remedial Investigation Feasibility Study" ("EMOU RI/FS") is on file with the City.

B. As used herein, the words "Permit Holder" mean and include the private entity Crown City Plating Co. and Maness Environmental Services, Inc., a consulting environmental engineering firm, engaged under that certain professional engineering services contract by Crown City Plating Co. to perform the professional engineering services as specified therein. At all times during the term of this Permit, Crown City Plating Co. shall be responsible for assuring that Maness Environmental Services, Inc., or another qualified consulting environmental engineering firm, is a party to this Permit.

C. The permit Holder and its agents may install and maintain the Well and obtain groundwater samples from the Well during the term of this Permit, subject to the following conditions:

1. This Permit authorizes the Permit Holder (and its agents) to install, operate and maintain the Well and obtain water samples from the Well from time-to-time at its sole cost and expense. The Well shall be situated within the public street right-of-ways of the City generally at the location designated as MW 2-3 on the map attached hereto as Exhibit "D". The City makes no representation or warranty to the Permit Holder that this location of the Well is situated within public street right-of-ways dedicated for public use to the City. The designation of the specific location of the Well within the public street right-of-ways, as provided in Paragraph 17, shall be subject to confirmation by the City that the work of installation of the Well shall not unduly inconvenience residential or business occupants on nearby private lands. The City shall confirm the suitability of the specific location for the Well within seven (7) days after receipt of written request from the Permit Holder. Any material change in the design, construction or

proposed method of operation of the Well following the date on which the specific location for the Well has been designated by the Permit Holder and confirmed by the City, shall require the prior written approval of the USEPA and the written concurrence of the City. Such written concurrence of the City shall not be unreasonably withheld.

2. The USEPA shall approve the specific location and design and development specifications of the Well before any work of improvement in the public street right-of-ways may be initiated by the Permit Holder under this Permit. The USEPA shall confirm to City staff that the issuance of this Permit by the City is consistent with the EMOU RI/FS. The USEPA, its contractors and oversight officials, and the State of California and its contractors, shall be authorized to observe and inspect the installation, operation and maintenance of the Well and to collect duplicate and split samples of groundwater from the Well.

3. The Well shall be designed, constructed, installed and operated by the Permit Holder. Neither the City nor any of its officers, employees and agents assume or accept any responsibility whatsoever for the adequacy, suitability, design or operation of the Well. By accepting this Permit, the Permit Holder agrees to comply with the public street excavation construction standards of the City Department of Public Works and shall restore the public sidewalk, roadway and other right-of-way surfaces around the Well to a safe and useable condition without interference to traffic promptly upon the completion of any work of installation or maintenance or groundwater sampling in accordance with the standards and recommendations of the City Department of Public Works.

4. After the suitability of a specific location for the Well has been confirmed by the City, the Permit Holder and/or its agents shall notify the City not less than seventy-two (72) hours in advance of the date on which the Permit Holder proposes to commence the work of installation of the Well. The Permit Holder shall be responsible for contacting each utility service operator with either underground or overhead facilities in proximity to the Well not less than seventy-two (72) hours in advance of the commencement of any excavation work in order to complete the verification of field location(s) of such underground or overhead utility service facilities. The Permit Holder shall observe the excavation safety recommendations of any such affected utility service operator. The performance of the work of installation of the Well may need to be scheduled by the Permit Holder so as to avoid or minimize any adverse vehicle traffic conflicts on nearby public streets and to minimize interference with public street access for nearby private properties. Accordingly, the Permit Holder shall observe the traffic safety regulations, work site sound mitigation measures, if necessary, and work site security precautions and other recommendations of the City Department of Public Works, including hours of work restriction during the course of the installation and maintenance or groundwater sampling work at the Well. The Permit Holder believes that approximately one (1) to two (2) weeks of time may be necessary following the date of issuance of this Permit to complete the selection of the specific location of the Well, as provided in Paragraph 17. Once the work of installation of the Well has commenced, the Permit Holder shall diligently complete such work of installation of the Well as promptly as feasible. The Permit Holder believes that it may take approximately one week of time to complete the installation of the Well after the work has been commenced. The Well shall be constructed in accordance with any and all applicable local, state and federal laws. The work of improvement of the Well shall be performed in a good and

"workmanlike" manner and the Permit Holder shall dispose of soil cuttings, drilling mud, waste water and any hazardous wastes produced during the course of construction of the Well under one or more hazardous waste disposal manifests issued by the appropriate State or federal agency in the manner required by law.

5. The Permit Holder and its agents shall take all appropriate health and safety measures and implement public street vehicle traffic safety precautions at all times when obtaining groundwater samples from the Well or when otherwise engaged in maintenance activities associated with the operation of the Well. Unless the Permit Holder obtains written approval from the Regional Water Quality Control Board to discharge groundwater produced from the Well to the storm water run-off system, no groundwater produced from the Well shall be discharged into the storm water run-off system of the City and all groundwater produced from the Well during the course of groundwater sampling or maintenance activities following completion of the installation of the Well shall be transported for disposal under a hazardous waste disposal manifest issued by the appropriate State or federal agency in the manner required by law.

6. The Permit Holder understands and acknowledges that, in performing the work associated with the Well, certain employees and subcontractors of any of them may be working with, or be exposed to, substances or conditions which are hazardous, as these terms are generally defined in Exhibit "B". The Permit Holder acknowledges that this Permit has been issued by the City on the basis of the representations of the Permit Holder concerning their broad experience and special expertise in dealing with such substances and conditions and that the City is relying on the Permit Holder and its agents to identify, monitor, evaluate and minimize potential risks involved with the installation and operation of the Well. The Permit Holder covenants to the City that it shall take all reasonably appropriate precautions to avoid such risks to its employees, subcontractors, vendors and the public generally. The Permit Holder agrees that the Permit Holder and all of its agents knowingly and voluntarily assume full responsibility for ascertaining the existence of such risks, evaluating their significance, implementing appropriate safety precautions during the course of installation of the Well and at all times after the completion of the installation of the Well, and shall implement training programs or provide specific guidance and supervision for its employees, subcontractors, vendors and other persons who may carry out the activities contemplated under this Permit, with due regard to such risks and appropriate safety precautions.

7. All groundwater sampling data derived from the Well shall, upon written request from the City, be provided to the City Department of Public Works and shall be deemed to be "public records" of the City as that term is defined in Government Code Section 6250.

8. Promptly upon the suspension or termination of groundwater sampling and monitoring activities at the Well, the Permit Holder shall secure the Well in accordance with standards approved by the USEPA. Upon the expiration, revocation, cessation or other termination of this Permit, or the abandonment of the Well by the Permit Holder, the Well shall be secured and/or closed by the Permit Holder in a manner which is authorized by the USEPA.

9. Both the Permit Holder and all of its agents engaged in the design, construction and installation of the Well, and the sampling of groundwater from the Well, shall comply with all State and federal social security, worker's compensation and unemployment insurance laws, and the Permit Holder shall obtain and maintain during the term of this Permit without cost to the City insurance coverage which satisfies Exhibit "A" attached hereto and incorporated herein by this reference.

10. Each party to this Permit shall execute the special indemnity agreement in favor of the City as attached hereto as Exhibit "B" and incorporated herein by this reference before any of the work of improvement of the Well may be initiated within the public street right-of-ways.

11. Unless terminated earlier, this Permit shall have a term of three (3) years commencing on the date of issuance by the City. The Permit Holder may request that the term of this Permit be extended after its expiration date; provided that at the time of such a request, no violation of any condition of this Permit shall exist. The City shall not unreasonably withhold the approval of a request for the extension of the term of this Permit.

12. This Permit shall not be assigned or transferred by the Permit Holder to a third party without the prior written approval of the City. Any assignee or successor in interest to the Permit Holder shall assume all of the duties and liabilities of its predecessor in interest. The private entity Crown City Plating Co. shall have a privilege under this Permit to designate a successor environmental consulting engineering firm to install, operate and maintain the Well and to obtain groundwater samples from the Well; provided that the City is given not less than thirty (30) days prior written notice of the name and an appropriately detailed description of the technical engineering qualifications of such successor environmental consulting engineering firm. The City shall approve a successor environmental consulting engineering firm designated by the private entity Crown City Plating Co., on the condition that such a successor entity shall have appropriate technical competence and expertise and that such successor entity shall expressly assume all of the obligations of its predecessor to the City as arise hereunder. The resignation or abandonment of the duties and obligations of Crown City Plating Co. or the environmental consulting engineering firm party to this Permit as arise hereunder in favor of the City shall be grounds for the City to revoke this Permit in the manner provided in Paragraph 16.

13. This Permit may be modified by the City after the date of its issuance upon the transmittal of a written "Notice to Modify Monitoring Well" in the event that substantial public street work repairs or improvements, including and without limitation underground utility improvements, are planned and scheduled to be constructed by the City in the vicinity of a Well and that the continued operation, groundwater sampling, and maintenance of the Well within the public right-of-way during or after such planned street construction activity cannot be accommodated without additional cost to the City (which accommodation the City will seek in the first instance). Prior to the issuance of any Notice to Modify Monitoring Well, the City and the Permit Holder shall confer in good faith regarding the street construction activities planned by the City and the Permit Holder and the City shall use their best efforts to arrive at an accommodation which would minimize the cost of modifying the Well. The Permit Holder shall modify, or at its election relocate or remove, the Well within one hundred and eighty (180) days following the transmittal of a Notice to Modify Monitoring Well. The Permit Holder

acknowledges and agrees that in the event that the City may transmit a Notice to Modify Monitoring Well, and thereafter the Permit Holder incurs costs or expenses in connection with a modification, relocation or removal of the Well, then the Permit Holder shall have no claim and hereby expressly waives its right to claim any so-called "relocation benefits" from any public entity, including without limitation the City under either State or federal law(e.g.: Government Code Section 7260, et seq.). In the event the Permit Holder may elect to relocate the Well following or before the completion of such public street improvements, such relocation shall be subject to the issuance by the City of a new public street right-of-way encroachment permit which includes substantially the same conditions as this Permit. The issuance of such a new permit by the City shall not be unreasonably denied.

14. For the purposes of this Permit, the following persons may be contacted:

For the City:

Mr. Fred Wickman City Engineer,
City of Rosemead City Hall
8838 E. Valley Boulevard
Rosemead, California 91770
(818) 288-6671

For Permit Holder/private entity member of Crown City Plating Co.:

Lawrence P. Donovan III
Vice President
Crown City Plating Co.
4350 Temple City Blvd.
El Monte, CA 91731
(818) 444-9291

For Permit Holder/Maness Environmental Services, Inc.:

Gary Runnells
Remediation Services Manager
1101 East Spring St.
P. O. Box 90939
Long Beach, CA 90809-0939

For USEPA:
Bella Dizon
EMOU Project
Manager Hazardous Waste Management Division
USEPA, Region IX 75
Hawthorne Street H-6-5
San Francisco, California 94105
(415) 744-2155

15. If any legal action or proceeding is brought for the enforcement, or for a declaration of any right or duty of any party arising under, this Permit or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Permit, the prevailing party in such a legal action or proceeding shall also be entitled to recover all of its costs and expenses, including, without limitation, court costs and reasonable attorneys' fees and expert witness fees, in addition to any damages or other relief that may be granted to such prevailing party.

16. This Permit is subject to revocation by the City upon sixty (60) days written notice of revocation to the Permit Holder in the event that any condition hereof has been violated and/or not satisfied, provided that such violation has remained uncured for thirty (30) days following the date on which written notice of such violation has been transmitted by the City to the Permit Holder. The City may exercise any right or power to enforce the provisions of this Permit against Crown City Plating Co., either jointly or severally, and/or Maness Environmental Services, Inc., and each hereby expressly waives any claim or defense which it may otherwise assert as a guarantor, co-venturer or otherwise, of the performance of any duty or discharge of any obligation in favor of the City or any other private entity party to this Permit. The insolvency or bankruptcy of any private entity party to this Permit shall not release any other private entity party to this Permit of its obligations to the City hereunder.

17. Additional conditions to this Permit associated with the final designation of specific locations of the Well and the commencement of work of installation of the Well in the public street right-of-ways are included in Exhibit "C" as attached hereto and incorporated herein by this reference. Permit Holder shall pay to the City the City's standard $50.00 issuance fee in connection with issuance of the Permit.

18. This Permit shall automatically cease and be of no further force or effect in the event that: (i) the Permit Holder may not commence the work of installation of the Well within ninety (90) days of the date of issuance of this Permit by the City, or (ii) the Permit Holder may fail to provide the City with appropriate written confirmation of the continuous coverage and/or periodic renewal of the insurance coverage described in Paragraph 9 above. This Permit is further subject to termination by the Permit Holder upon thirty (30) days written notice of termination to the City and, if the work of installation of the Well has been commenced, the removal and/or securing of the Well in a manner which is authorized by the USEPA.

19. Notwithstanding any other provision of this Permit, neither this Permit nor any activities taken pursuant to it shall constitute a waiver of any defense by any party to this Permit or any admission for any purpose by any party to this Permit of any liability or responsibility for any past, present or future condition of the EMOU, lands in the EMOU or the groundwater in the EMOU. Further, this Permit is not, and shall not be construed as an agreement by any party to this Permit to install the Well or thereafter, upon completion of the installation of the Well, to undertake any sampling, investigation, remediation or similar activities; provided however, upon commencement by the Permit Holder, all such work of installation and operation of the Well shall be conducted in accordance with the terms and conditions of this Permit. Nothing in this Paragraph is intended or should be construed to limit, bar or otherwise impede the enforcement of any term or condition of this Permit against any part to this Permit.

20. This Permit may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same Permit.

THE CONDITIONS OF THE ISSUANCE OF THIS PERMIT ARE HEREBY ACCEPTED BY THE PERMIT HOLDER AS OF THE DATES INDICATED NEXT TO THE SIGNATURES OF THEIR AUTHORIZED REPRESENTATIVES.

MANESS ENVIRONMENTAL SERVICES, INC.

Date: 2-11-97 By: _____
Allan Campbell

Its: Vice President

Date: 2-10-97 CROWN CITY PLATING CO.

By: _____
Lawrence P. Donovan III

Its: Vice President, Chemistry, Environmental, Health & Safety

THIS PERMIT IS ISSUED ON FEBRUARY 11 1997, PURSUANT TO AUTHORIZATION BY THE CITY OF ROSEMEAD.

CITY OF ROSEMEAD

Date: 2-11-97 By: _____

Its: City Engineer

1997

ADDITIONAL INSURED POLICY LIMITS IN FAVOR OF THE CITY FOR TEMPORARY OFF-SITE GROUNDWATER (El Monte Operable Unit Interim RI/FS)

A. Minimum Limits of Insurance

An applicant for an encroachment permit shall provide written proof in a form satisfactory to the City of the maintenance of comprehensive general liability insurance ("CGL Coverage Insurance") which names the City, its officers, employees and its agents as an additional insured with liability limits no less than:

1. **General Liability:** Aggregate general coverage of $2,000,000.00 with $1,000,000.00 of coverage for each occurrence of bodily injury, personal injury and property damage; and

2. **Automobile Liability:** Combined single limit coverage of $1,000,000.00 for bodily injury and property damage (used, owned, hired or non-owned automobiles).

Deductibles or Self-Insured Retention Amounts

Any CGL Coverage Insurance policy deductible or self-insured retention amount in excess of $25,000.00 per occurrence must be declared to the City and approved in writing by the City. At the option of the City, either the insurer shall reduce or eliminate a deductible or the applicant for the encroachment permit shall deliver a surety bond to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

The term "applicant for an encroachment permit" in the case of an off-site groundwater monitoring well described in the encroachment permit shall mean the consulting environmental engineering firm that shall conduct the work of installation of the groundwater monitoring well pursuant to the conditions of the encroachment permit.

B. Other CGL Coverage Insurance Provisions

The CGL Coverage Insurance and the automobile liability insurance policies are to contain, or be endorsed to contain, the following provisions:

1. The City, and its subordinate agencies, officials and employees are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the applicant for the encroachment permit; or automobiles owned, leased, hired or borrowed by the applicant for the encroachment permit. The coverage shall contain no special limitations on the scope of protection afforded to the City, its subordinate agencies, officials and employees.

2. For any claims related to the activities authorized under the encroachment permit, the CGL Coverage Insurance shall be contributory insurance with respect to the City, its subordinate agencies, officials and employees.

3. Any failure by the applicant for the encroachment permit to comply with reporting or other provision of the CGL Coverage Insurance policy, including breaches of warranties of the applicant for the encroachment permit to either its insurance company or to the City, shall not affect the CGL Coverage Insurance provided to the City, its subordinate agencies, officials and employees.

4. The CGL Coverage Insurance required by this Exhibit "A" shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

5. The CGL coverage insurance required by this Exibit "A" shall be maintained continuously throughout the term of the encroachment permit and shall be renewed (or replaced with new CGL Coverage Insurance) prior to the expiration of the CGL Coverage Insurance policy required by this Exhibit "A" as evidenced by an appropriate certificate of insurance issued by a qualified insurance company described in Paragraph C, below. The CGL Coverage Insurance specifications in this Exhibit "A" may be supplemented or amended from time-to-time by the City for good cause based upon prudent and customary risk management protection standards of the City.

6. Each CGL Coverage Insurance policy required by this Exhibit "A" shall be endorsed in favor of the City to state that coverage shall not be suspended, voided, canceled by either the insured or the CGL Coverage Insurance company or reduced in scope of coverage or in liability limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

C. Acceptability of CGL Coverage Insurance Company

CGL Coverage Insurance shall be placed with an insurance company which is licensed by the State of California Department of Insurance to sell CGL Coverage Insurance in the State of California and which has also been admitted as a member of the California Insurance Guarantee Fund and which also maintains a current A.M. Best's insurance rating of not less than: A(vii).

D. Evidence of CGL Coverage Insurance

Evidence of CGL Coverage Insurance which satisfies the requirements of this Exhibit "A," and of workers' compensation insurance for the contractors which conduct the work of installation of the groundwater monitoring well pursuant to the conditions of the encroachment permit, shall be provided by a written certificate of insurance (and accompanying endorsements by the insurance carrier(s)) prepared by an insurance broker licensed to do business in the State or shall be evidenced by such other means as the City may approve. The written evidence of coverage (and each renewal thereof) shall be delivered to the attention of:

Mr. Fred Wickman
City Engineer, City of Rosemead
City Hall 8838 E. Valley Boulevard
Rosemead, California 91770
(818) 288-6671

PUBLIC STREET RIGHT-OF-WAY ENCROACHMENT PERMIT
INDEMNITY AGREEMENT
FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELLS
(El Monte Operable Unit Interim RI/FS)

Encroachment Permit No. 6759, issued February 11, 1997

Applicant: Maness Environmental Services, Inc.

Effective upon the date of issuance by the City of Rosemead of the public street right-of-way encroachment permit on file with the City of Rosemead Department of Public Works (the "Permit") for the installation of temporary off-site groundwater monitoring well , Maness Environmental Services, Inc. hereby agrees to indemnify, protect, hold harmless and defend the City of Rosemead, its subordinate agencies, officers and employees (collectively the "City") with legal counsel reasonably acceptable to the City, from and against all claims, costs, damages, fines, judgments, penalties, lawsuits, liabilities or expenses suffered or incurred by the City which result from negligent acts, errors or omissions in the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, except to the extent that any such claim or liability may be caused by the negligence or willful act of the City. The foregoing indemnification under this Indemnity Agreement shall include losses or injuries for which the City is alleged to be responsible or liable by virtue of: (a) personal injuries, property damages, or environmental contamination claims associated with an alleged unauthorized release of any hazardous substance into the environment, which results from the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, (b) payment of liens, including without limitation mechanics or materialman's liens, associated with the installation or operation of the temporary off-site groundwater monitoring well, or (c) sums paid in settlement or compromise by the City of a claim or liability resulting from the temporary off-site groundwater monitoring well described in the Permit. The foregoing indemnification under this Indemnity Agreement shall exclude any liability, claimed or actual, known or unknown, relating to the existing condition of the property on which the temporary off-site groundwater monitoring well described in the Permit is to be installed, or the existing environmental condition of the El Monte Operable Unit, as of the date of issuance of the Permit. As used herein, the term "hazardous substance" shall mean any chemical compound, material, mixture or substance that is now or hereafter defined or listed in or otherwise classified pursuant to any local, state or federal laws or regulations as a "hazardous substance", "hazardous material", "extremely hazardous wastes", "infectious waste", "hazardous waste", "toxic substance", "toxic pollutant" or any other formulation intended to define, list or classify substances by reason of deleterious properties such as flammability, corrosivity, reactivity, or toxicity. This Indemnity Agreement shall remain in full force and effect during the time Maness Environmental Services, Inc.shall install and thereafter maintain and operate the temporary off-site groundwater monitoring well described in the Permit and shall terminate on the earliest of any of the following dates: (i) the date on which a third party may expressly assume the indemnity obligation of Maness Environmental Services, Inc. to the City under the Permit and this Indemnity Agreement; or (ii) the date on which the USEPA, the State of California or a third party or parties may accept responsibility in writing for the ownership, operation and maintenance of the well and the conditions of the Permit under the Permit or another Permit, or (iii) the second (2nd) anniversary date following the date on which the well is abandoned by the Permit Holder and the conditions relating to closure of the well as provided in the Permit have been satisfied; or (iv) the tenth (10th) anniversary date following the date of termination of the Permit. The City shall promptly give written notice to Maness Environmental Services, Inc. of receipt of any claim against the City which is covered by this Indemnity Agreement and shall deliver to Maness Environmental Services, Inc. copies of all documents received by the City in connection with such claims. The foregoing indemnification under this Indemnity Agreement shall not apply to any claim as to which written notice is not given to Maness Environmental Services, Inc. prior to the applicable termination date of this Indemnity Agreement.

MANESS ENVIRONMENTAL SERVICES, INC.

Date: 2-11-97

By: _____
Allan Campbell

Its: Vice President

ACCEPTED BY CITY OF ROSEMEAD

Date: 2-11-97

By: Fred Wicksman
City of Rosemead

Its: City Engineer

PUBLIC STREET RIGHT-OF-WAY ENCROACHMENT PERMIT
INDEMNITY AGREEMENT
FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELLS
(El Monte Operable Unit Interim RI/FS)

Encroachment Permit No. 6759, issued February 11, 1997

Applicant: Crown City Plating Co.

Effective upon the date of issuance by the City of Rosemead of the public street right-of-way encroachment permit on file with the City of Rosemead Department of Public Works (the "Permit") for the installation of temporary off-site groundwater monitoring well , Crown City Plating Co. hereby agrees to indemnify, protect, hold harmless and defend the City of Rosemead, its subordinate agencies, officers and employees (collectively the "City") with legal counsel reasonably acceptable to the City, from and against all claims, costs, damages, fines, judgments, penalties, lawsuits, liabilities or expenses suffered or incurred by the City which result from negligent acts, errors or omissions in the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, except to the extent that any such claim or liability may be caused by the negligence or willful act of the City. The foregoing indemnification under this Indemnity Agreement shall include losses or injuries for which the City is alleged to be responsible or liable by virtue of: (a) personal injuries, property damages, or environmental contamination claims associated with an alleged unauthorized release of any hazardous substance into the environment, which results from the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, (b) payment of liens, including without limitation mechanics or materialman's liens, associated with the installation or operation of the temporary off-site groundwater monitoring well, or (c) sums paid in settlement or compromise by the City of a claim or liability resulting from the temporary off-site groundwater monitoring well described in the Permit. The foregoing indemnification under this Indemnity Agreement shall exclude any liability, claimed or actual, known or unknown, relating to the existing condition of the property on which the temporary off-site groundwater monitoring well described in the Permit is to be installed, or the existing environmental condition of the El Monte Operable Unit, as of the date of issuance of the Permit. As used herein, the term "hazardous substance" shall mean any chemical compound, material, mixture or substance that is now or hereafter defined or listed in or otherwise classified pursuant to any local, state or federal laws or regulations as a "hazardous substance", "hazardous material", "extremely hazardous wastes", "infectious waste", "hazardous waste", "toxic substance", "toxic pollutant" or any other formulation intended to define, list or classify substances by reason of deleterious properties such as flammability, corrosivity, reactivity, or toxicity. This Indemnity Agreement shall remain in full force and effect during the time Crown City Plating Co. through Maness Environmental Services, Inc. or a successor consulting Environmental Engineering firm, shall install and thereafter maintain and operate the temporary off-site groundwater monitoring well described in the Permit and shall terminate on the earliest of any of the following dates: (i) the date on which a third party may expressly assume the indemnity obligation of Crown City Plating Co. to the City under the Permit and this Indemnity Agreement; or (ii) the date on which the USEPA, the State of California or a third party or parties may accept responsibility in writing for the ownership, operation and maintenance of the well and the conditions of the Permit under the Permit or another Permit, or (iii) the second (2nd) anniversary date following the date on which the well is abandoned by the Permit Holder and the conditions relating to closure of the well as provided in the Permit have been satisfied; or (iv) the tenth (10th) anniversary date following the date of termination of the Permit. The City shall promptly give written notice to Crown City Plating Co. of receipt of any claim against the City which is covered by this Indemnity Agreement and shall deliver to Crown City Plating Co. copies of all documents received by the City in connection with such claims. The foregoing indemnification under this Indemnity Agreement shall not apply to any claim as to which written notice is not given to Crown City Plating Co. prior to the applicable termination date of this Indemnity Agreement.

CROWN CITY PLATING CO.

Date: 2-10-97

By: Lawrence P. Donovan

Its: Vice President

ACCEPTED BY CITY OF ROSEMEAD

Date: 2-11-97

By: Fred Wickham
City of Rosemead

Its: City Engineer

1997
PUBLIC STREET RIGHT OF WAY ENCROACHMENT PERMIT
FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL
(El Monte Operable Interim RI/FS)

Exhibit "C"

Encroachment Permit No. 6759, issued February 11, 1997.

[See Paragraph 17 of the Permit.]

The City of Rosemead Department of Public Works hereby incorporates by this reference the text of the Permit referenced in the caption of this Exhibit "C" and adds the following site-specific conditions which shall be applicable to the work of installation and operation of the Well:

1. Delivery of a current preliminary title report which describes the condition of title of the parcels of private property which abut the public street right-of-way segments in which the Well is proposed to be located (including copies of private easement/street dedication documents relating to the abutting public street right-of-ways);

2. Delivery of a copy of a set of design plans for the Well;

3. Delivery of a traffic safety and control plan for installation of the Well approved by the City Engineer;

4. Delivery of a roadway/sidewalk surface restoration plan approved by the City Engineer.

5. Delivery of a letter of notification to be distributed to the area residents regarding the installation and operation of the Well, including work schedule, approved by the City Engineer.

The Department of Public Works reserves the discretion, after consultation with the Permit Holders, to modify and/or add new provisions to this Exhibit "C" as circumstances relating to the installation and operation of the Well and the protection of public health and safety may reasonably require.

Date: February 11, 1997

By Fred Wilson
City Engineer
City of Rosemead, California

CITY OF EL MONTE
CITY HALL EAST • 11333 VALLEY BOULEVARD
EL MONTE, CALIFORNIA 91731
TELEPHONE (818) 580-2010
FAX (818) 580-2290

CITY ATTORNEY
DAVID F. GONDEK

DEPUTY CITY ATTORNEY
MARVIN JOE CICHY

DEPUTY CITY ATTORNEY
GINA MARIE AGUIRRE

February 5, 1997

L. P. Donovan III
Vice President, Chemistry, Environmental, Health & Safety
Crown City Plating Co.
4350 Temple City Boulevard
El Monte, California 91731

RE: 1997 City of El Monte Temporary Off-Site Groundwater Monitoring Well Public Right-of-Way Encroachment Permit (El Monte Operable Unit; Crown City Plating Co. and Maness Environmental Services, Inc.)

Dear Mr. Donovan:

The purpose of this correspondence is to confirm our telephone conversation on February 5, 1997 regarding the matter described in the caption of this letter.

Please be informed that the Public Works Department staff of the City of El Monte (the "City") have concluded the final pre-construction field inspections and consultations with certain residents living within proximity of the MW2-4 monitoring well site as of February 4, 1997.

Please be further informed that, as of February 5, 1997, the City has executed the 1997 Temporary Off-Site Groundwater Monitoring Well Public Right-of-Way Encroachment Permit (El Monte Operable Unit; Crown City Plating Co. and Maness Environmental Services, Inc.). A copy of the fully-executed form of the encroachment permit is enclosed for the records of Crown City Plating Co. and Maness Environmental Services, Inc.

Accordingly Crown City Plating Co. and Maness Environmental Services, Inc., are authorized to proceed pursuant to the encroachment permit with the indicated work at USEPA/El Monte Operable Unit MW2-4 site as of February 5, 1997.

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(041.2-132)

If I may be of any further assistance to you in this matter, please do not hesitate to contact me.

Very truly yours,

OFFICE OF THE CITY ATTORNEY
CITY OF EL MONTE, CALIFORNIA

David F. Gondek
City Attorney

DFG:sb
(Enclosure)
cc: City Clerk
Gregory D. Korduner
Harold O. Johanson
Juan D. Mireles
Bella Dizon
James Goodrich

A276:007.0-126:sb
(041.2-132)

1997

CITY OF EL MONTE
TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL PUBLIC RIGHT-OF-WAY ENCROACHMENT PERMIT

(El Monte Operable Unit: Crown City Plating Co. and Maness Environmental Services, Inc.)

THE CITY COUNCIL OF THE CITY OF EL MONTE, CALIFORNIA (the "City") has authorized the issuance of this temporary off-site groundwater monitoring well public right-of-way encroachment permit (the "Permit") to Crown City Plating Co., a California corporation and Maness Environmental Services, Inc., jointly and severally (collectively the "Permit Holder") as of February 6, 1997, subject to the conditions described below, for the purpose of installing and thereafter operating and maintaining a temporary off-site groundwater monitoring well (the "Well") within a portion of the public street right-of-way of Baldwin Avenue near the overcrossing of the Interstate 10 Freeway and Baldwin Avenue, El Monte, California, as more specifically described below. This Permit is issued, subject to the special conditions of this Permit, in accordance with El-Monte Municipal Code Section 6351, et seq.

CONDITIONS OF PERMIT

A. This Permit is issued to the Permit Holder as part of a program of regulatory accommodation of the City for the benefit of the Permit Holder relating to the use, operation and maintenance of the public streets of the City and in order to assist Crown City Plating Co. to satisfy certain undertakings and commitments relating to the Well which arise under Unilateral Administrative Order 95-017, dated May 31, 1995, by the United States Environmental Protection Agency (the "USEPA") to Crown City Plating Co.

B. As used herein, the words "Permit Holder" mean and include Crown City Plating Co. and Maness Environmental Services, Inc., a consulting environmental engineering firm, engaged under that certain professional engineering services contract by and between Crown City Plating Co. to perform the professional engineering services as specified therein. At all times during the term of this Permit, Crown City Plating Co., jointly and severally, shall be responsible for assuring that Maness Environmental Services, Inc., or another qualified consulting environmental engineering firm, is a party to this Permit.

C. The Permit Molder and its agents may install and maintain the Well and obtain groundwater samples from the Well during the term of this Permit, subject to the following conditions:

1. This Permit authorizes the Permit Holder (and its agents) to install, operate and maintain the Well and obtain water samples from the Well from time-to-time at its sole cost and expense. The Well shall be located within the public street right-of-way generally depicted in the January 24, 1997, correspondence from Crown City Plating Co., addressed to

A271 :041.2-115:ah

E CONTAINS 28 PAGES OF TEXT, INCLUDING ALL ATTACHMENTS

CITY ATTORNEY of the City. The City makes no representation or warranty to the Permit Holder that the location of the Well, as depicted in the January 24 1997, correspondence is situated within a public street right-of-way dedicated for public use to the City of El Monte. The designation of the specific location of the Well within the public street right-of-way of Baldwin Avenue, as provided in Paragraph 18, shall be subject to confirmation by the City that the work of installation of the Well shall not unduly inconvenience residential or business occupants on nearby private lands. The City shall confirm the suitability of a specific location for the Well within seven (7) days after receipt of written request from the Permit Holder. Any material change in the design, construction or proposed method of operation of the Well following the date on which a specific location for the Well has been designated by the Permit Holder and confirmed by the City, shall require the prior written approval of the City. Such written approval of the City shall not be unreasonably withheld.

2. The Permit Holder shall provide the City with written confirmation that the USEPA has approved the specific location and design and development specifications of the Well before any work of improvement in the public street right-of-way may be initiated by the Permit Holder under this Permit.

3. The Well shall be designed, constructed, installed and operated by the Permit Holder. Neither the City nor any of its officers, employees and agents assume or accept any responsibility whatsoever for the adequacy, suitability, design or operation of the Well. By accepting this Permit, the Permit Holder agrees to comply with the public street excavation construction standards of the City of El Monte Department of Public Works and shall restore the public sidewalk, roadway and other right-of-way surfaces around the Well to a safe and useable condition without interference to traffic promptly upon the completion of any work of installation or maintenance or groundwater sampling in accordance with the standards and recommendations of the City of El Monte Department of Public Works.

4. After the suitability of a specific location for the Well has been confirmed by the City, the Permit Holder and/or its agents shall notify the City not less than seventy-two (72) hours in advance of the date on which the Permit Holder proposes to commence the work of installation of the Well. The Permit Holder shall be responsible for contacting each utility service operator with either underground or overhead facilities in proximity to the Well not less than seventy-two (72) hours in advance of the commencement of any excavation work in order to complete the verification of field location(s) of such underground or overhead utility service facilities. The Permit Holder shall observe the excavation safety recommendations of any such affected utility service operator. The performance of the work of installation of the Well may need to be scheduled by the Permit Holder so as to avoid or minimize any adverse vehicle traffic conflicts on nearby public streets and to minimize interference with public street access for nearby private properties. Accordingly, the Permit Holder shall observe the the traffic safety regulations, work site sound mitigation measures, if necessary, and work

site security precautions and other recommendations of the City of El Monte Department of Public Works, including hours of work restriction during the course of the installation and maintenance or groundwater sampling work at the Well. The Permit Holder believes that approximately one (1) to two (2) weeks of time may be necessary following the date of issuance of this Permit to complete the selection of the specific location of the Well, as provided in Paragraph 18. Once the work of installation of the Well has commenced, the Permit Holder shall diligently complete such work of installation of the Well as promptly as feasible. The Permit Holder believes that it may take approximately one week of time to complete the installation of the Well after the work has been commenced. The work of improvement of the Well shall be performed in a good and "workmanlike" manner and the Permit Holder shall dispose of soil cuttings, drilling mud, waste water. Any hazardous wastes produced during the course of construction of the Well shall be legally used or disposed in a manner required by law.

5. The Permit Holder and its agents shall take all appropriate health and safety measures and implement public street vehicle traffic safety precautions at all times when obtaining groundwater samples from the Well or when otherwise engaged in maintenance activities associated with the operation of the Well. Unless the Permit Holder obtains written approval from the Regional Water Quality Control Board to discharge groundwater produced from the Well to the storm water run-off system, no groundwater produced from the Well shall be discharged into the storm water run-off system of the City and all groundwater produced from the Well during the course of groundwater sampling or maintenance activities following completion of the installation of the Well shall be used or disposed in a manner required by law.

The Permit Holder understands and acknowledges that, in performing the work associated with the Well, certain employees and subcontractors of any of them may be working with, or be exposed to, substances or conditions which are hazardous, as these terms are generally defined in Exhibit "B". The Permit Holder acknowledges that this Permit has been issued by the City on the basis of the representations of the Permit Holder concerning their broad experience and special expertise in dealing with such substances and conditions and that the City is relying on the Permit Holder and its agents to identify, monitor, evaluate and minimize potential risks involved with the installation and operation of the Well. The Permit Holder covenants to the City that it shall take all reasonably appropriate precautions to avoid such risks to its employees, subcontractors, vendors and the public generally. The Permit Holder agrees that the Permit Holder and all of their agents knowingly and voluntarily assume full responsibility for ascertaining the existence of such risks, evaluating their significance, implementing appropriate safety precautions during the course of installation of the Well and at all times after the completion of the installation of the Well and shall implement training programs or provide specific guidance and supervision for their employees, subcontractors, vendors and other persons who may carry out the activities contemplated under this Permit, with due regard to such risks and appropriate safety precautions.

All groundwater sampling data derived from the Well, shall upon written request from the City be provided to the City of El Monte Department of Public Works and shall be deemed to be "public records" of the City as that term is defined in Government Code Section 6250.

8. Promptly upon the suspension or termination of groundwater sampling and monitoring activities at the Well, the Permit Holder shall secure the Well in accordance with standards approved by the USEPA. Upon the expiration, cancellation, abandonment or termination of this Permit, the Well shall be removed and/or secured by the Permit Holder in a manner which is authorized by the USEPA.

9. Both the Permit Holder and all of its agents engaged in the design, construction and installation of the Well, and the sampling of groundwater from the Well shall comply with all State and federal social security, worker's compensation and unemployment insurance laws, and the Permit Holder shall obtain and maintain during the term of this Permit without cost to the City insurance coverage which satisfies the findings of the City Administrator attached hereto as Exhibit "A" and incorporated herein by this reference.

10. Each party to this Permit shall execute the special indemnity agreement in favor of the City as attached hereto as Exhibit "B", and incorporated herein by this reference before any of the work of improvement of the Well may be initiated within the public street right-of-way.

11. [RESERVED: Performance surety bond requirement relating to satisfaction of minimum installation standards for roadway surface restoration and security for costs associated with final removal of the Well has been waived by the City in cooperation with the El Monte Community Redevelopment Agency as part of the activities described in the 1994 Redevelopment Implementation Plan, as amended for the Northwest El Monte Redevelopment Project].

12. Unless terminated earlier, this Permit shall have a term of three (3) years commencing on the date of issuance by the City. Crown City Plating Co. may request that the term of this Permit be extended after its expiration date; provided that at the time of such a request, no violation of any condition of this Permit shall exist. The City shall not unreasonably withhold the approval of a request for the extension of the term of this Permit.

13. This Permit shall not be assigned or transferred by the Permit Holder to a third party without the prior written approval of the City. Any assignee or successor in interest to the Permit Holder shall assume all of the duties and liabilities of its predecessor in interest. Crown City Plating Co., has a privilege under this Permit to designate a successor environmental consulting engineering firm to install, operate and maintain the Well and to obtain groundwater samples from the Well; provided that the City is given not less than thirty (30) days prior written notice of the name and an appropriately detailed description of the technical engineering qualifications of such successor environmental consulting engineering firm. The City shall approve a successor environmental consulting engineering firm designated by Crown City Plating Co., on the condition that such a successor entity shall have appropriate technical competence and expertise and that such successor entity shall expressly assume all of the obligations of its predecessor to the City as arise hereunder. The resignation or abandonment of the duties and obligations of Crown City Plating Co., or the environmental consulting engineering firm party to this Permit as arise hereunder in favor of the City shall be grounds for the City to revoke this Permit in the manner provided in Paragraph 17.

14. This Permit may be modified by the City after the date of its issuance upon the transmittal of a written "Notice to Modify Monitoring Well" in the event that substantial public street work repairs or improvements, including and without limitation underground utility improvements, are planned and scheduled to be constructed by the City in the vicinity of the Well and that the continued operation, groundwater sampling, and maintenance of the Well within the public right-of-way during or after such planned street construction activity cannot be accommodated without additional cost to the City (which accommodation the City will seek in the first instance). Prior to the issuance of any Notice to Modify Monitoring Well, the City and the Permit Holder shall confer in good faith regarding the street construction activities planned by the City and the Permit Holder and the City use their best efforts to arrive at an accommodation which would minimize the cost of modifying the Well. The Permit Holder shall modify, relocate or remove the Well within one hundred and eighty (180) days following the transmittal of a Notice to Modify Monitoring Well. The Permit Holder acknowledges and agrees that in the event that the City may transmit a Notice to Modify Monitoring Well, and thereafter the Permit Holder incurs costs or expenses in connection with a modification, relocation or removal of the Well, then the Permit Holder shall have no claim and hereby expressly waives its right to claim any so-called "relocation benefits" from any public entity, including without limitation the City under either State or federal law (e.g.: Government Code Section 7260, et seq.). In the event the Permit Holder may elect to relocate the Well upon the completion of such public street improvements, such relocation shall be subject to the issuance by the City of a new public street right-of-way encroachment permit which includes substantially the same conditions as this Permit. The issuance of such a new permit by the City shall not be unreasonably denied.

15. For the purposes of this Permit, the following persons may be contacted:

For the City:

Juan D. Mireles
Assistant Director of Community Development
City Hall West
11333 Valley Boulevard
El Monte, California 91731
(818) 580-2056

For Permit Holder:

Mr. L. P. Donovan III
Corporate Counsel
Crown City Plating Co.
4350 Temple City Boulevard
El Monte, California 91731
(818) 444-9291

For Permit Holder/Maness Environmental Services, Inc.:

Gary Runnella
Remediation Services Manager
Maness Environmental Services, Inc.
1101 East Spring Street
P. O. Box 90939
Long Beach, CA 90809-0939

For USEPA:

Bella Dizon
EMOU Project Manager
Hazardous Waste Management Division
USEPA, Region IX
75 Hawthorne Street - H-6-5
San Francisco, California 94105
(415) 744-2155

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16. If any legal action or proceeding is brought for the enforcement or for a declaration of any right and duty of any party arising under this Permit or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Permit, the prevailing party in such a legal action or proceeding shall also be entitled to recover all of its costs and expenses, including, without limitation, court costs and reasonable attorneys' fees and expert witness fees, in addition to any damages or other relief that may be granted to such prevailing party.

17. This Permit is subject to revocation by the City upon sixty (60) days written notice of revocation to the Permit Holder in the event that any condition hereof has been violated and/or not satisfied, provided that such violation has remained uncured for thirty (30) days following the date on which written notice of such violation has been transmitted by the City to the Permit Holder. The City may exercise any right or power to enforce the provisions of this Permit against Crown City Plating Co., and/or Maness Environmental Services, Inc., jointly or severally, Crown City Plating Co., and Maness Environmental Services, Inc., hereby expressly waive any claim or defense which it may otherwise assert as a guarantor, co-venturer or otherwise, of the performance of any duty or discharge of any obligation in favor of the City of any other private entity party to this Permit. The insolvency or bankruptcy of any private entity party to this Permit shall not release any other private entity party to this Permit of its obligations to the City hereunder.

18. Additional conditions to this Permit associated with the final designation of a specific location of the Well and the commencement of work of installation of the Well in the public right-of-way are included in Exhibit "C" as attached hereto and incorporated herein by this reference. The City Council has granted the Permit Holder a waiver and special exemption from the payment of all applicable regulatory fees and inspection charges which would otherwise be payable to the City at the time of issuance or renewal of the Permit.

19. This Permit shall automatically cease and be of no further force nor effect in the event that: (i) the Permit Holder may not commence the work of installation of the Well within ninety (90) days of the date of issuance of this Permit by the City, or (ii) the Permit Holder may fail to provide the City with appropriate written confirmation of the continuous coverage and/or periodic renewal of the insurance coverage described in Paragraph 9, above. This Permit is further subject to termination by the Permit Holder at any time after the work of installation of the Well has been commenced upon thirty (30) days written notice of termination to the City and the removal of the Well. 20. Notwithstanding any other provision of this Permit, neither this Permit nor any activities taken pursuant to it shall constitute a waiver of any defense by any party to this Permit or any admission for any purpose by any party to this Permit of any liability or responsibility for any past, present or future condition of the EMOU, lands in the EMOU or the groundwater in the EMOU. Further, this Permit is not, and shall not be construed as an agreement by any party to this Permit to install the Well or thereafter, upon completion of the installation of the Well, to undertake any sampling investigation, remediation or similar activities; provided however, upon commencement

by the Permit Holder, all such work of installation and operation of the Well shall be conducted in accordance with the terms and conditions of this Permit. This Permit may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same Permit.

THE CONDITIONS OF THE ISSUANCE OF THIS PERMIT ARE HEREBY ACCEPTED BY THE PERMIT HOLDER AS OF THE DATES INDICATED NEXT TO THE SIGNATURES OF THEIR AUTHORIZED REPRESENTATIVES.

MANESS ENVIRONMENTAL SERVICES, INC.

Date: January 22, 1997

By: _____
Allan G. Campbell
Its: Vice President, COO

CROWN CITY PLATING CO.

Date: 1-20-97

By: _____
Its: Vice President

A271:041.2-115:ah

THIS PERMIT IS ISSUED ON FEBRUARY 5, 1997, PURSUANT TO AUTHORIZATION BY THE CITY COUNCIL OF THE CITY OF EL MONTE.

CITY
CITY OF EL MONTE

Date: 2-5-97

By: Harold O. Johanson
Director of Community Development

Approved as To Form:

2-5-97

David F. Gondek
City Attorney

A271:041.2-115:ah

1997

FINDINGS OF CITY OF EL MONTE CITY ADMINISTRATOR REGARDING ADDITIONAL INSURED POLICY LIMITS IN FAVOR OF THE CITY FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL ENCROACHMENT PERMIT

(El Monte Operable Unit Interim RI/FS)

The City Administrator hereby finds that the minimum standards of insurance under El Monte Municipal Code Section 2920 are not sufficient for purposes of managing the risk to which the City of El Monte (the "City") may be exposed by virtue of the installation and maintenance of a temporary offsite groundwater monitoring well within the right-of-way of a public street under a special regulatory accommodation and public street right-of-way encroachment permit program administered by the City relating to regional groundwater quality remedial investigation work being conducted within a portion of the so-called El Monte Operable Unit which is located within the territorial boundaries of the City.

The City Administrator further finds and determines that the additional insurance standards listed below are consistent with prudent and customary risk management protection programs of the City and will further assist the City in managing public entity liability risk and maintaining an appropriate degree of regulatory supervision of the installation, operation and groundwater sampling of a privately owned and operated remedial investigation groundwater monitoring well facility which has been approved and authorized under the special circumstances of an encroachment permit issued by the Department of Public Works (subject to other conditions of the Department of Public Works, as appropriate).

A. Minimum Limits of Insurance

An applicant for an encroachment permit which is subject to these findings of the City Administrator shall provide written proof in a form satisfactory to the City of the maintenance of comprehensive general liability insurance ("CGL Coverage") which names the City, its officers, employees and its agents as an additional insured with liability limits no less than:

1. General Liability: Aggregate general coverage of $2,000,000.00 with $1,000,000.00 of coverage for each occurrence of bodily injury, personal injury and property damage; and

2. Automobile Liability: Combined single limit coverage of $1,000,000.00 for bodily injury and property damage (used, owned, hired or non-owned automobiles.)

A271:041.2-115:ah

Deductibles or Self-Insured Retention Amounts

Any CGL Coverage insurance policy deductible or self-insured retention amount in excess of $25,000 per occurrence must be declared to the City and approved in writing by the City. At the option of the City, either the insurer shall reduce or eliminate a deductible or the applicant for the encroachment permit shall deliver a surety bond to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

The term "applicant for an encroachment permit" in the case of an off-site groundwater monitoring well described in the encroachment permit shall mean the environmental consulting engineer or other responsible person who shall conduct the work of installation of the groundwater monitoring well pursuant to the conditions of the encroachment permit.

B. Other CGL Coverage Insurance Provisions

The CGL Coverage Insurance and the automobile liability insurance policies are to contain, or be endorsed to contain, the following provisions:

1. The City, and its subordinate agencies (e.g.: the El Monte Community Redevelopment Agency, the El Monte Community Industrial Development Authority, etc.), officials and employees are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the applicant for the encroachment permit; or automobiles owned, leased, hired or borrowed by the applicant for the encroachment permit. The coverage shall contain no special limitations on the scope of protection afforded to the City, its subordinate agencies, officials and employees.

2. For any claims related to the activities authorized under the encroachment permit, the CGL Coverage Insurance shall be primary insurance with respect to the City, its subordinate agencies, officials and employees. Any insurance or self-insurance maintained by the City, its subordinate agencies, officials and employees shall be in excess of the encroachment permit applicant's CGL Coverage Insurance and shall not contribute with it.

3. Any failure by the applicant for the encroachment permit to comply with reporting or other provisions of the CGL Coverage Insurance policy, including breaches of warranties of the applicant for the encroachment permit to either its insurance company or to the City, shall not affect the CGL Coverage Insurance provided to the City, its subordinate agencies, officials and employees.

A271:041.2-115:ah

J. Mireles Assistant
Director of Public Works
City of El Monte
11333 Valley Boulevard
El Monte, California, 91734
(818) 580-2056

The foregoing CGL Coverage Insurance policy limits and specifications for temporary off-site groundwater monitoring well(s) for the El Monte Operable Unit are hereby approved as authorized by El Monte Municipal Code Section 2920(2).

Dated: _____

Greg Korduner (mw)
Gregory D. Korduner
City Administrator

A271:041.2-115:ah

07/23/96
08/20/96

1997

PUBLIC STREET RIGHT-OF-WAY ENCROACHMENT PERMIT INDEMNITY AGREEMENT FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL

(El Monte Operable Unit Interim RI/FS)

Encroachment Permit No. _____, issued FEBRUARY 5, 1997

Applicant: Maness Environmental Services, Inc.

Effective upon the date of issuance by the City of El Monte of the public right-of-way encroachment permit well on file with the City of El Monte Department of Public Works (the "Permit") for the installation of a temporary off-site groundwater monitoring well, Maness Environmental Services, Inc., hereby agrees to indemnify, protect, hold harmless and defend the City of El Monte, its subordinate agencies, officers and employees (collectively the "City") with legal counsel reasonably acceptable to the City, from and against all claims, costs, damages, fines, judgments, penalties, lawsuits, liabilities or expenses suffered or incurred by the City which result from the installation and operation of the temporary off-site groundwater monitoring well described in the Permit, except to the extent that any such claim or liability may be caused by the negligence or willful act of the City. The foregoing indemnification under this Indemnity Agreement shall include losses or injuries for which the City is alleged to be responsible or liable by virtue of: (a) personal injuries, property damages, or environmental contamination claims associated with an alleged unauthorized release of any hazardous substance into the environment, which result from the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, @) payment of liens, including without limitation mechanics or materialman's liens, associated with the installation or operation of the temporary off-site groundwater monitoring well, or (c) sums paid in settlement or compromise by the City of a claim or liability resulting from the temporary off-site groundwater monitoring well described in the Permit. The foregoing indemnification under this Indemnity Agreement shall exclude any liability, claimed or actual, known or unknown, relating to the existing condition of the property on which the temporary off-site groundwater monitoring well described in the Permit is to be installed, or the existing environmental condition of the El Monte Operable Unit, as of the date of issuance of the Permit. As used herein, the term "hazardous substance" shall mean any chemical compound, material mixture or substance that is now or hereafter defined or listed in or otherwise classified pursuant to any local, state or federal laws or regulations as a "hazardous substance", "hazardous material", "extremely hazardous waste", "infectious waste", "hazardous waste" "toxic substance", "toxic pollutant" or any other formulation intended to define, list or classify substances by reason of deleterious properties such as flammability, corrosivity, reactivity, or toxicity. This Indemnity Agreement shall remain in full force and effect during the time that Maness Environmental Services, Inc., shall install and thereafter maintain and operate the temporary off-site groundwater monitoring well described in the Permit and shall terminate on the earliest of any of the following dates: (i) the date on which a third party may expressly assume the indemnity obligation Maness Environmental Services, Inc., to the City under the Permit and this Indemnity Agreement; or (ii) the second (2nd) anniversary date following the date on which the USEPA or the State of California may accept responsibility in writing for the ownership, operation and maintenance of the Well and the conditions of this Permit; or (iii) the second (2nd) anniversary date following the date on which the Well is ordered to be closed and secured by the USEPA or the State of California and the other conditions relating to final closure of the Well as provided in the Permit have been satisfied; or (iv) the tenth (IOth) anniversary date following the date of termination of the Permit. The City shall promptly give written notice to Maness Environmental Services, Inc., of receipt of any claim against the City which is covered by this Indemnity Agreement and shall deliver to Maness Environmental Services, Inc., copies of all documents received by the City in connection with such claims. The foregoing indemnification under this Indemnity Agreement shall not apply to any claim as to which written notice is not given to Maness Environmental Services, Inc., prior to the applicable termination date of this Indemnity Agreement of the Permit.

Maness Environmental Services, Inc.

Date: January 22, 1997

By: _____

It's: Vice President, GOO

Allan G. Campbell

ACCEPTED BY CITY OF EL MONTE

Date: 2-5-97

By: _____

Its: _____

City of El Monte

A271:041.2-115:ah

1997

PUBLIC STREET RIGHT-OF-WAY ENCROACHMENT PERMIT
INDEMNITY AGREEMENT
FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL

(El Monte Operable Unit Interim RI/FS)

Encroachment Permit No. _____, issued FEBRUARY 5, 1997

Applicant: Crown City Plating Co.

Effective upon the date of issuance by the City of El Monte of the public right-of-way encroachment permit well on file with the City of El Monte Department of Public Works (the "Permit") for the installation of a temporary off-site groundwater monitoring well, Crown City Plating Co., hereby agrees to indemnify, protect, hold harmless and defend the City of El Monte, its subordinate agencies, officers and employees (collectively the "City") with legal counsel reasonably acceptable to the City, from and against all claims, costs, damages, fines, judgments, penalties, lawsuits, liabilities or expenses suffered or incurred by the City which result from the installation and operation of the temporary off-site groundwater monitoring well described in the Permit, except to the extent that any such claim or liability may be caused by the negligence or willful act of the City. The foregoing indemnification under this Indemnity Agreement shall include losses or injuries for which the City is alleged to be responsible or liable by virtue of: (a) personal injuries, property damages, or environmental contamination claims associated with an alleged unauthorized release of any hazardous substance into the environment, which result from the design, installation or operation of the temporary off-site groundwater monitoring well described in the Permit, @) payment of liens, including without limitation mechanics or materialman's liens, associated with the installation or operation of the temporary off-site groundwater monitoring well, or (c) sums paid in settlement or compromise by the City of a claim or liability resulting from the temporary off-site groundwater monitoring well described in the Permit. The foregoing indemnification under this Indemnity Agreement shall exclude any liability, claimed or actual, known or unknown, relating to the existing condition of the property on which the temporary off-site groundwater monitoring well described in the Permit is to be installed, or the existing environmental condition of the El Monte Operable Unit, as of the date of issuance of the Permit. As used herein, the term "hazardous substance" shall mean any chemical compound, material mixture or substance that is now or hereafter defined or listed in or otherwise classified pursuant to any local, state or federal laws or regulations as a "hazardous substance", "hazardous material", "extremely hazardous waste", "infectious waste", "hazardous waste" "toxic substance", "toxic pollutant" or any other formulation intended to define, list or classify substances by reason of deleterious properties such as flammability, corrosivity, reactivity, or toxicity. This Indemnity Agreement shall remain in full force and effect during the time that Crown City Plating Co. shall install and thereafter maintain and operate the temporary off-site groundwater monitoring well described in the Permit and shall terminate on the earliest of any of the following dates: (i) the date on which a third party may expressly assume the indemnity obligation. Crown City Plating Co., to the City under the Permit and this Indemnity Agreement; or (ii) the second (2nd) anniversary date following the date on which the USEPA or the State of California may accept responsibility in writing for the ownership, operation and maintenance of the Well and the conditions of this Permit; or (iii) the second (2nd) anniversary date following the date on which the Well is ordered to be closed and secured by the USEPA or the State of California and the other conditions relating to final closure of the Well as provided in the Permit have been satisfied; or (iv) the tenth (lOth) anniversary date following the date of termination of the Permit. The City shall promptly give written notice to Crown City Plating Co. of receipt of any claim against the City which is covered by this Indemnity Agreement and shall deliver to Crown City Plating Co. copies of all documents received by the City in connection with such claims. The foregoing indemnification under this Indemnity Agreement shall not apply to any claim as to which written notice is not given to Crown City Plating Co. prior to the applicable termination date of this Indemnity Agreement of the Permit.

CROWN CITY PLATING CO.

Date: 1-20-97

By: _____

It's: Vice President

ACCEPTED BY CITY OF EL MONTE

Date: 2-5-97

By: _____

Its: _____

City of El Monte

A271:041.2-115:ah

1997

PUBLIC STREET RIGHT-OF-WAY ENCROACHMENT PERMIT
FOR TEMPORARY OFF-SITE GROUNDWATER MONITORING WELL
(El Monte Operable Unit Interim RI/FS)

EXHIBIT "C"

Encroachment Permit No. _____, issued FEBRUARY 5, 1997

[See Paragraph 18 of the Permit]

The City of El Monte Department of Public Works hereby incorporates by this reference the text of the Permit referenced in the caption of this Exhibit "C" and adds the following site-specific conditions which shall also be applicable to the work of installation and operation of the Well:

1. Delivery of a current preliminary title report which describes the condition of title of the parcel of private property which abuts the public street right-of-way segment in which the Well is proposed to be located (including copies of private easement/street dedication documents relating to the abutting public street right-of-way);

2. Delivery of a copy of a set of design plans for the Well;

3. Delivery of a Well installation traffic safety and control plan approved by the City Engineer;

4. Delivery of a roadway/sidewalk surface restoration plan approved by the City Engineer.

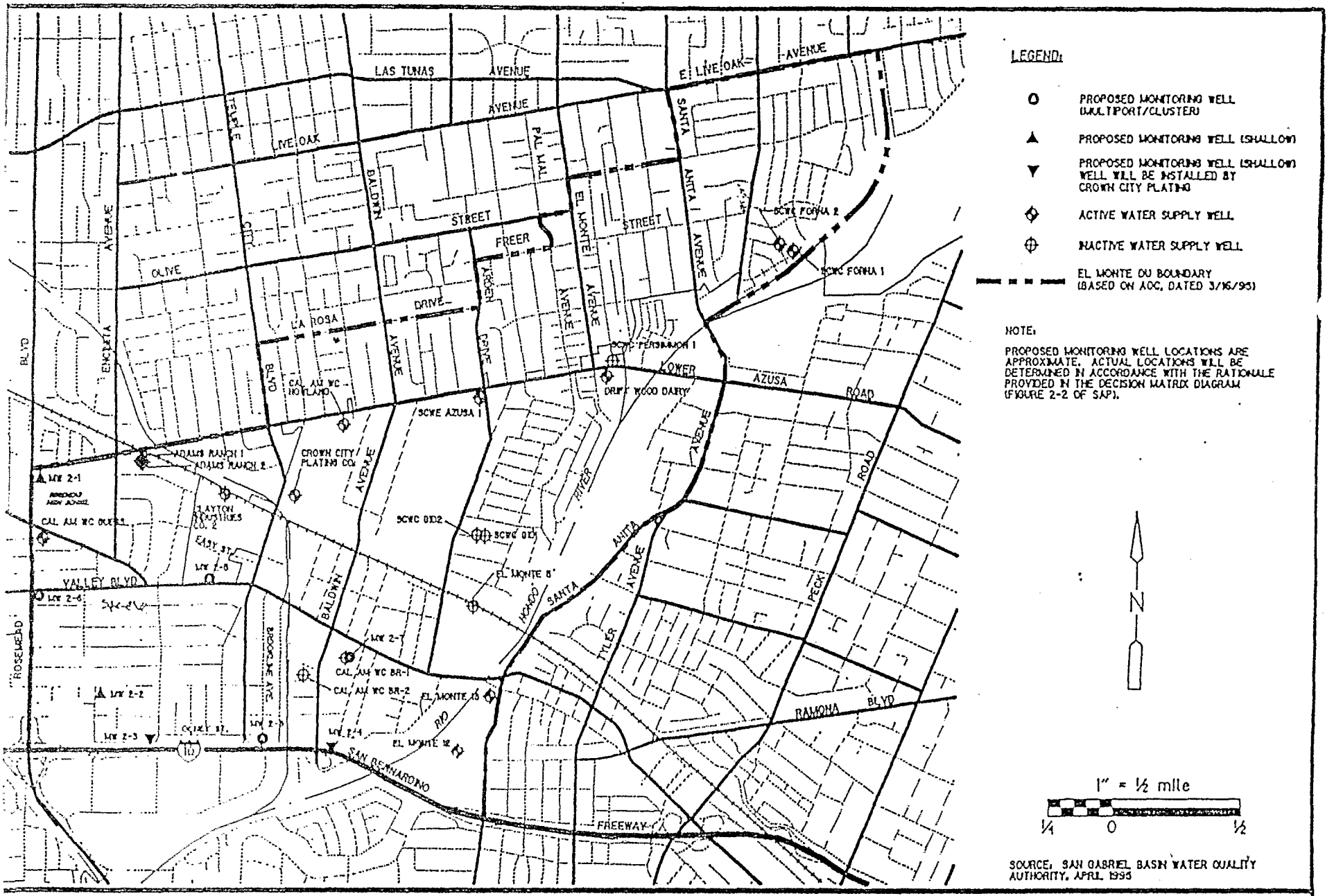
[Additional text subject to review by Department of Public Works]

The Department of Public Works reserves the discretion, after consultation with the Permit Holder, to modify and/or add new provisions to this Exhibit "C" as circumstances relating to the installation and operation of the Well and the protection of public health and safety may reasonably require.

Dated: 2-5-, 1997

By _____
City Engineer
City of El Monte, California

WORK HOURS LIMITED TO: 7:30 AM → 5:00 PM
MONDAY THRU FRIDAY



EL MONTE OPERABLE UNIT

PROPOSED RI WELL LOCATION MAP

Exhibit "D"

CDM

environmental engineers, scientists, planners, & management consultants

Figure 1

MANESS
ENVIRONMENTAL SERVICES, INC.
A DIVISION OF
MANESS INDUSTRIES

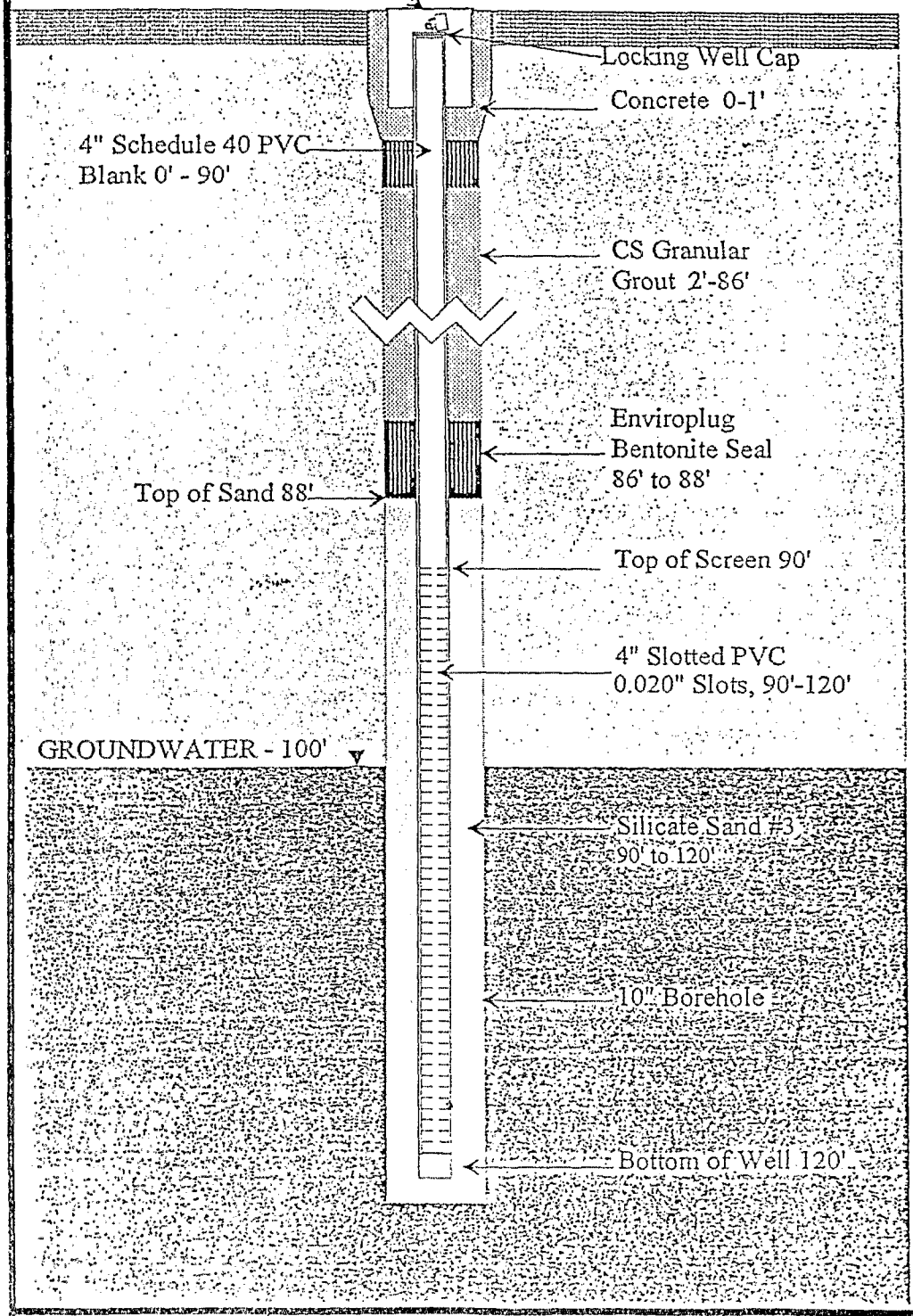


FIGURE 1

MONITORING WELL CONSTRUCTION DESIGN

SITE LOCATIONS

Olney Street & Rio Hondo Avenue,
Rosemead, and
Baldwin Avenue & Loftus Street,
El Monte, CA

PROJECT #: 51298

DATE: 12/10/96

NOT TO SCALE

Drawn By: Ronald Santos
Checked By: Gabriele Baader
Approved By: Gary Runnells

ACORD CERTIFICATE OF LIABILITY INSURANCE

CSR LH MANESS1 | DATE (MM/DD/YY) 01/08/97

PRODUCER
The Wooditch Company
Insurance Services, Inc.
One Park Plaza, Suite 430
Irvine CA 92714

William S. Wooditch
Phone No. 714-553-9800 Fax No.

THIS CERTIFICATE IS UED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Maness Environmental Services, Inc.
Post Office Box 90939
1101 East Spring Street
Long Beach CA 90809

COMPANIES AFFORDING COVERAGE

COMPANY A: National Union Fire Ins. Co.
COMPANY B: Fireman's Fund Ins. Co.
COMPANY C: Ulico Casualty Company
COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR [X] OWNER'S & CONTRACTOR'S PROT	GL 8176294	04/01/96	04/01/97	GENERAL AGGREGATE PRODUCTS - COMP/OP AGG PERSONAL & ADV INJURY EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person)	$ 2,000,000 $ 1,000,000 $ 1,000,000 $ 1,000,000 $ 50,000 $ 5,000
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	MXA80158751	04/01/96	04/01/97	COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE	$ 1,000,000 $ $ $
	GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EACH ACCIDENT AGGREGATE	$ $ $
	EXCESS LIABILITY [ ] UMBRELLA FORM [ ] OTHER THAN UMBRELLA FORM				EACH OCCURRENCE AGGREGATE 	$ $ $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL [ ] EXCL	WD404017400	04/01/96	04/01/97	[X] WC STATUTORY LIMITS [ ] OTHER EL EACH ACCIDENT EL DISEASE - POLICY LIMIT EL DISEASE - EA EMPLOYEE	 $ 1,000,000 $ 1,000,000 $ 1,000,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Special Conditions General Liability: See endorsement attached

CERTIFICATE HOLDER

COELMO1

City of El Monte
Attn: David Gondek
City Hall East
11333 Valley Blvd.
El Monte, CA 91731

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
William S. Wooditch

ACORD 25-S (1/95)

CG 2010 11 85

COMMERCIAL GENERAL LIABILITY

POLICY NUMBER: GL 8176294

INSURED: Maness Environmental Services, Inc.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS (FORM B)

The endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:	
City of El Monte	For Permit Purposes

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only as respect to liability arising out of "your work" for that insured by or for you.

ACORD. CERTIFICATE OF INSURANCE

DATE (MM/DD/YY) 12/09/96

PRODUCER
Armstrong/Robitaille Ins. Svc.
Ingham, Coates & Payne
301 E. Colorado Blvd. #301
Pasadena, CA 91101

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Crown City Plating Co.
4350 Temple City Blvd
El Monte, CA 91731

COMPANIES AFFORDING COVERAGE

COMPANY A: Valley Forge Insurance Companies

COMPANY B:

COMPANY C:

COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	C134591738	02/24/96	02/24/97	GENERAL AGGREGATE	$2,000,000
	[X] COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG	$1,000,000
	[ ] CLAIMS MADE [X] OCCUR				PERSONAL & ADV INJURY	$1,000,000
	[ ] OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$1,000,000
					FIRE DAMAGE (Any one fire)	$50,000
					MED EXP (Any one person)	$5,000
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	[ ] ANY AUTO				BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS				BODILY INJURY (Per accident)	$
	[ ] SCHEDULED AUTOS				PROPERTY DAMAGE	$
	[ ] HIRED AUTOS					
	[ ] NON-OWNED AUTOS					
	GARAGE LIABILITY				AUTO ONLY-EA ACCIDENT	$
	[ ] ANY AUTO				OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	[ ] UMBRELLA FORM				AGGREGATE	$
	[ ] OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY LIMITS	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL [ ] EXCL				EACH ACCIDENT	$
					DISEASE-POLICY LIMIT	$
					DISEASE-EACH EMPLOYEE	$
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS
Certificate holder is hereby named as additional insured per form CG 2010 attached to policy

CERTIFICATE HOLDER

City of El Monte
Attn: David Gondek
City Hall East
11333 Valley Blvd
El Monte CA 91731

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL [illegible] 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, [illegible]

AUTHORIZED REPRESENTATIVE
John F. Armstrong

POLICY NUMBER: C134591738 COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - DESIGNATED PERSON or ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:
City of El Monte
Attn: David Gondek
City Hall East
11333 Valley Blvd
El Monte CA 91731

Certificate holder is hereby named as additional insured per form CG 2010 attached to policy

{If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.}

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your operations or premises owned by or rented to you.

MANESS
ENVIRONMENTAL SERVICES, INC.

January 23, 1997

Maness Project No. 51298

Juan D. Mireles
Assistant Director of Community Development
City Hall West
11333 Valley Boulevard
El Monte, California 91731

RE: TRAFFIC AND SAFETY CONTROL PLAN FOR MONITORING WELL MW2-4 INSTALLATION AT THE INTERSECTION OF GIBSON ROAD AND OLNEY STREET IN EL MONTE, CALIFORNIA

Dear Mr. Mireles:

Maness Environmental Services, Inc. (Maness) is pleased to present the traffic and safety control plan for monitoring well MW2-4 installation at the intersection of Gibson Road and Olney Street in El Monte, California.

The work to be completed consists of: (1) installation of one off-site monitoring well, (2) groundwater sampling and analysis to determine the current water quality associated with the subject site, and (3) a report summarizing the results of monitoring well installation, groundwater monitoring and laboratory analysis.

The proposed monitoring well will be installed in the right lane of either Gibson Road or Olney Street. Maness proposes to use the traffic control plan as outlined in *Appendix - Closing of Right Lane* in order to ensure the safety of work personnel on-site and the general public. If the well location is not as proposed, Maness will follow the Watch Handbook recommendations.

Maness will contact each utility service operator with either underground or overhead facilities in proximity to the well in advance of the commencement of any excavation work through Dig Alert. Any drilling safety recommendations of affected utility service operator will be observed by Maness.

Well installation activities will be scheduled to avoid or minimize any adverse vehicle traffic conflicts on nearby public streets and to minimize interference with public street access for nearby private properties. Accordingly, Maness will observe local traffic safety regulations, work site sound mitigation measures, work site security precautions

1101 East Spring Street • Long Beach, CA 90806
P.O. Box 90939 • Long Beach, CA 90809-0939
Contractor's License No. 553633
(310) 595-4555 FAX: (310) 492-6495

and other recommendations of the City of El Monte Department of Public Works (EMDPW). Additionally, Maness will take all appropriate health and safety measures and implement public street vehicle traffic safety precautions at all times during groundwater sampling and well maintenance activities.

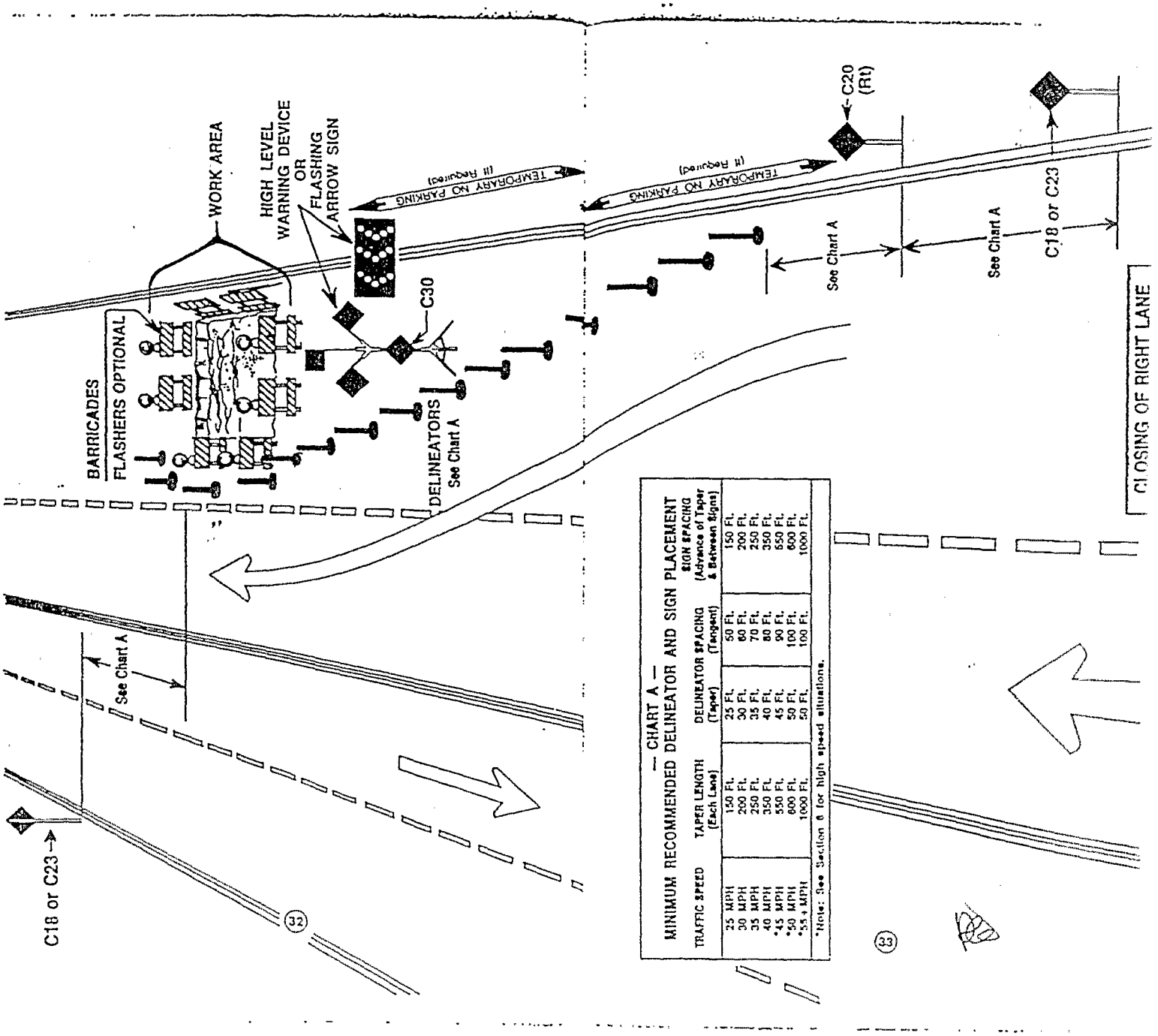
If you have any questions regarding the plan or require additional information, please feel free to call me at (310) 595-4555.

Sincerely,
Maness Environmental Services, Inc.

Gabriele Baader
Project Manager

APPENDIX

CLOSING OF RIGHT LANE



— CHART A —
MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT

TRAFFIC SPEED	TAPER LENGTH (Each Lane)	DELINEATOR SPACING (Taper)	DELINEATOR SPACING (Tangent)	SIGN SPACING (Advance of Taper & Between Signs)
25 MPH	150 Ft.	25 Ft.	50 Ft.	150 Ft.
30 MPH	200 Ft.	30 Ft.	60 Ft.	200 Ft.
35 MPH	250 Ft.	35 Ft.	70 Ft.	250 Ft.
40 MPH	350 Ft.	40 Ft.	80 Ft.	350 Ft.
*45 MPH	550 Ft.	45 Ft.	90 Ft.	550 Ft.
*50 MPH	600 Ft.	50 Ft.	100 Ft.	600 Ft.
*55 + MPH	1000 Ft.	50 Ft.	100 Ft.	1000 Ft.

*Note: See Section 6 for high speed situations.

Work Area Traffic Control Handbook, 1990, 7th ed., BNi Books, Division of BNI Publications, Inc., 3955 Overland Ave., Los Angeles, California 90034.

MANESS
ENVIRONMENTAL SERVICES, INC.

January 23, 1997

Maness Project No. 51298

Juan D. Mireles
Assistant Director of Community Development
City Hall West
11333 Valley Boulevard
El Monte, California 91731

RE: ROADWAY/SURFACE RESTORATION PLAN FOR MONITORING WELL MW2-4 INSTALLATION AT THE INTERSECTION OF GIBSON ROAD AND OLNEY STREET IN EL MONTE, CALIFORNIA

Dear Mr. Mireles:

Maness Environmental Services, Inc. (Maness) is pleased to present the roadway/surface restoration plan for monitoring well MW2-4 installation at the intersection of Gibson Road and Olney Street in El Monte, California.

The work to be completed consists of: (1) installation of one off-site monitoring well, (2) groundwater sampling and analysis to determine the current water quality associated with the subject site, and (3) a report summarizing the results of monitoring well installation, groundwater monitoring and laboratory analysis.

Maness agrees to comply with the public street excavation construction standards of the City of El Monte Department of Public Works (EMDPW). Upon the completion of well installation, maintenance and groundwater sampling activities, Maness will promptly restore the public sidewalk, roadway and other right-of-way surfaces around the well to a safe and useable condition without interference to traffic in accordance with the standards and recommendations of EMDPW.

The ground surface of the monitoring well will be finished as existing (asphalt or concrete, as appropriate). The well will be covered using a traffic rated steel vault with a triangular locking cover plate. The cover plate will be raised one half inch above existing roadway grade. A typical monitoring well construction design is attached as *Figure 1 - Monitoring Well Construction Design.* Well improvement activities will be performed in a good and "workmanlike" manner and any soil cuttings, drilling mud and rinseate generated during the drilling activities will be legally transported and disposed off-site in a manner required by law.

1101 East Spring Street • Long Beach, CA 90806
P.O. Box 90939 • Long Beach, CA 90809-0939
Contractor's License No. 553633
(310) 595-4555 FAX: (310) 492-6495

If you have any questions regarding the plan or require additional information, please feel free to call me at (310) 595-4555.

Sincerely,
Maness Environmental Services, Inc.

Gabriele Baader
Project Manager

MANESS
ENVIRONMENTAL SERVICES, INC.
A DIVISION OF
MANESS INDUSTRIES

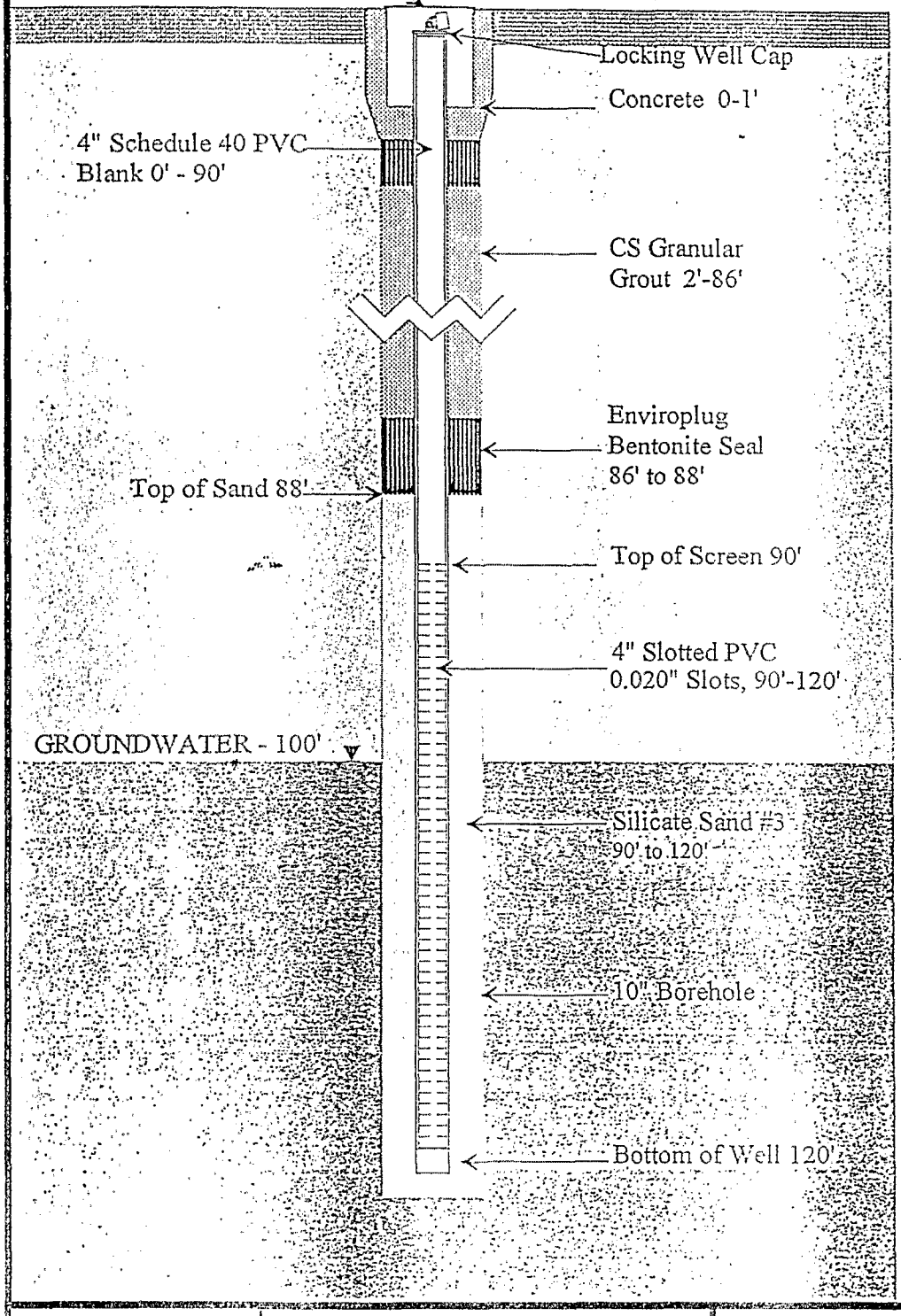


FIGURE 1

MONITORING WELL CONSTRUCTION DESIGN

SITE LOCATIONS

Olney Street & Rio Hondo Avenue,
Rosemead, and
Baldwin Avenue & Loftus Street,
El Monte, CA

PROJECT #: 51298

DATE: 12/10/96

NOT TO SCALE

Drawn By: Ronald Santos
Checked By: Gabriele Baader
Approved By: Gary Runnells

APPENDIX B

SOIL BORING LOGS

BORING NO. MW2-3
SHEET 1 OF 1

DATE BEGAN: 2/14/97 FIELD GEOLOGIST: Gabriele Baader
DATE FINISHED: 2/14/97 EDITED BY: Cyril Yong
SURFACE ELEV.: N/A CHECKED BY: Gary Runnells
CASING ELEVATION: N/A
DEPTH TO GROUNDWATER: 34 ft.

DRILLING EQUIPMENT: Conventional Rig
SAMPLING EQUIPMENT: CA Split Spoon with Brass
BOREHOLE DIAMETER: 8 inches
BORING ANGLE: Vertical

DEPTH IN FEET	WELL DETAIL/ BACKFILL	OVA READING (PPM)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE I.D.	SAMPLE	U.S.C.S.	PROFILE	DESCRIPTION
	See Monitoring Well Diagram	<0.5	6/7/8	MW2-3		SW		SAND: dark yellowish brown (10YR 4/2), damp, loose dense, medium to fine grained, angular to sub-rounded, well graded, little silt.
10		<0.5	10/14/17	MW2-3		SP		SAND: moderate yellowish brown (10YR 5/4), damp, medium dense, fine grained, poorly graded.
		<0.5	10/15/17	MW2-3		SW		SAND: moderate yellowish brown (10YR 4/2), damp, medium dense, medium to fine grained, well graded, trace silt.
20		<0.5	8/9/12	MW2-3		CL		CLAY: moderate yellowish brown (10YR 5/4), damp, medium stiff, fine grained, poorly graded.
		<0.5	11/14/16	MW2-3		SW		SAND: moderate yellowish brown (10YR 5/4), damp, medium dense, coarse to fine grained, well graded.
30		<0.5	11/14/18	MW2-3		SP		SAND: moderate yellowish brown (10YR 5/5), damp to moist, medium dense, medium to fine grained, poorly graded.
		<0.5	11/13/16	MW2-3		SW		SAND: moderate yellowish brown (10YR 5/4), moist, medium dense, medium to fine grained, well graded, trace gravel.
40		<0.5	11/15/16	MW2-3				SAND: moderate yellowish brown (10YR 5/4), saturated, medium dense, coarse to fine grained, sub-angular, well graded, little gravel.
		<0.5	9/11/14	MW2-3	Continuous Core	SP		SAND: moderate brown (5YR 3/4), moist, medium dense, medium to fine grained, poorly graded, trace silt.
50		<0.5	10/11/12	MW2-3		SP		SAND: moderate yellowish brown (10YR 5/4), moist, medium dense, medium to fine grained, poorly graded.
		<0.5	12/14/5	MW2-3		SW		SAND: moderate yellowish brown (10YR 5/4), saturated, medium dense, coarse to medium grained, well graded.
60								
70								

CLIENT: Crown City Plating
PROJECT NO.: 51298
LOCATION: Gibson Rd. & Vane St., Rosemead, CA.

MANESS
CORPORATION
A DIVISION OF MANESS INDUSTRIES
1101 EAST SPRING STREET, P.O. BOX 99039, LONG BEACH, CA 90809-0039
CONTRACTOR LICENSE NO. 553633, (562) 595-4555, FAX (562) 595-4555

BORING NO. MW2-4
SHEET 1 OF 1

DATE BEGAN: 2/6/97 FIELD GEOLOGIST: Gabriele Baader
DATE FINISHED: 2/6/97 EDITED BY: Cyril Yong
SURFACE ELEV.: N/A CHECKED BY: Gary Runnells
CASING ELEVATION: N/A
DEPTH TO GROUNDWATER: 35 ft.

DRILLING EQUIPMENT: Conventional Rig
SAMPLING EQUIPMENT: CA Split Spoon with Brass
BOREHOLE DIAMETER: 8 inches
BORING ANGLE: Vertical

DEPTH IN FEET	WELL DETAIL/ BACKFILL	OVA READING (PPM)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE I.D.	SAMPLE	U.S.C.S.	PROFILE	DESCRIPTION
	See Monitoring Well Diagram	0.5	8/11/15	MW2-4		SW		GRAVELLY SAND: very dark grayish brown (2.5Y 3/2), slightly damp, medium dense, medium to fine grained, angular to sub-rounded, well graded.
10		0.5	17/20/21	MW2-4		SM		SILTY SAND: brown (10YR 4/3), damp, medium dense, fine grained, poorly graded.
		0.7	15/20/24	MW2-4		SM		SILTY SAND: dark grayish brown (10YR 4/2), damp, medium dense, fine grained, poorly graded.
20		0.2	18/25/26	MW2-4		SM		
		0.5	19/21/26	MW2-4		SM		SILTY SAND: very dark grayish brown (10YR 3/2), damp, medium dense, fine grained, poorly graded.
30		0.3	20/21/23	MW2-4		SM		SILTY SAND: grayish brown (10YR 5/2), damp, medium dense, fine grained, poorly graded.
		0.2	15/17/18	MW2-4		SP		SAND: grayish brown (2.5Y 5/2), very moist, medium dense, coarse to medium grained,angular to sub-rounded, poorly graded.
40		0.5	14/16/18	MW2-4		SP		SAND: dark grayish brown (2.5Y 4/2), very moist, medium dense, medium grained, sub-angular, poorly graded.
		0.5	17/13/15	MW2-4		SW		SAND: grayish brown (2.5Y 5/2), very moist, medium dense, coarse to medium grained,angular to sub-angular, well graded, trace gravel.
50		0.5	17/13/15	MW2-4		SW		SAND: dark grayish brown (2.5Y 4/2), very moist, medium dense, coarse to medium grained, angular to sub-angular, well graded, trace gravel.
		0.5	17/13/15	MW2-4		SM		SILTY SAND: brown (10YR 4/3), very moist, medium dense, medium to fine grained, well graded.
60								
70								

CLIENT: Crown City Plating
PROJECT NO.: 51298
LOCATION: Gibson Rd. & Olney St., El Monte, CA

MANESS
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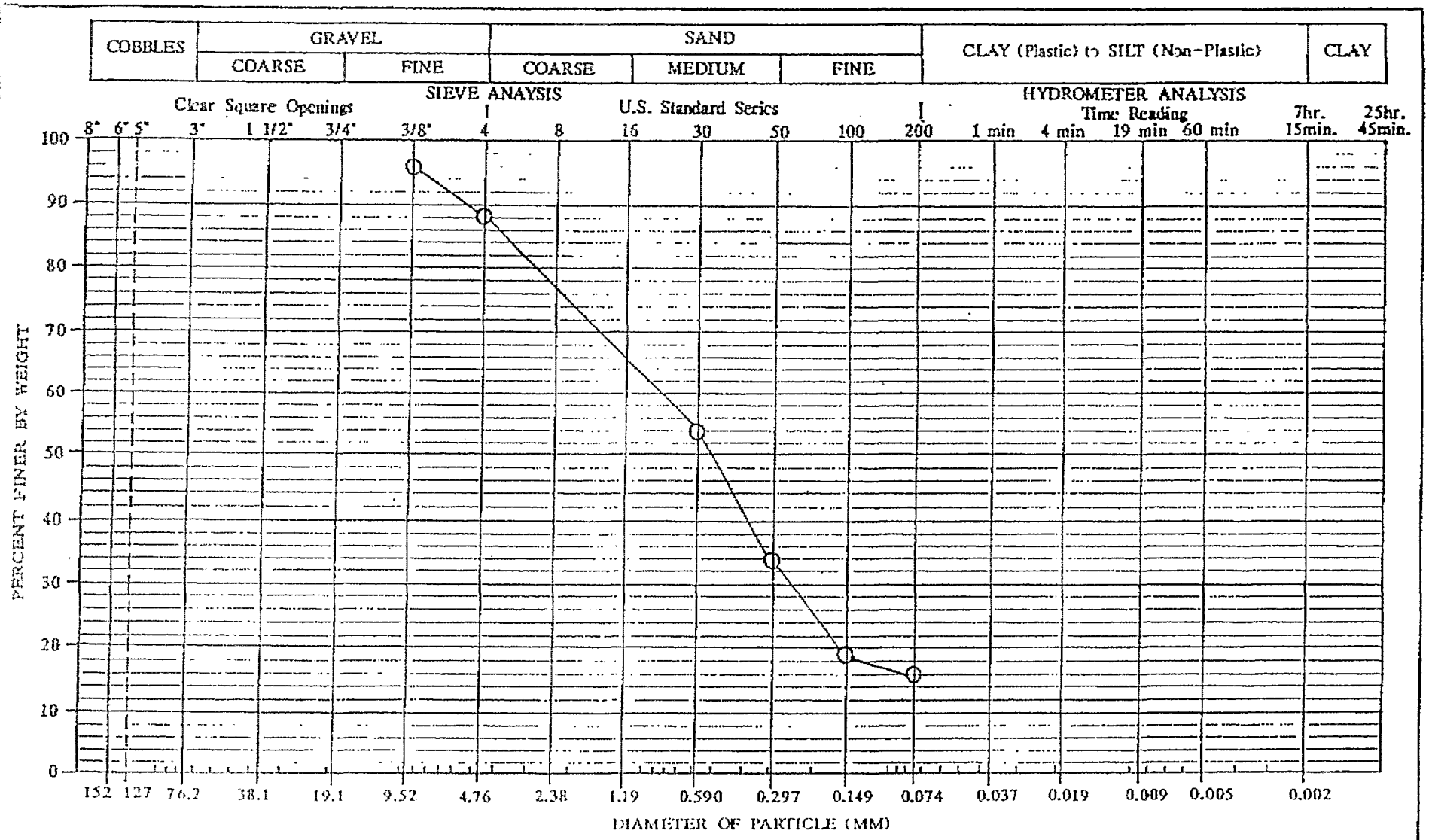
A DIVISION OF MANESS INDUSTRIES
1101 EAST SPRING STREET, P.O. BOX 90939, LONG BEACH, CA 90809-0939
CONTRACTOR LICENSE NO. 553633, (562) 595-4555, FAX (562) 492-6405



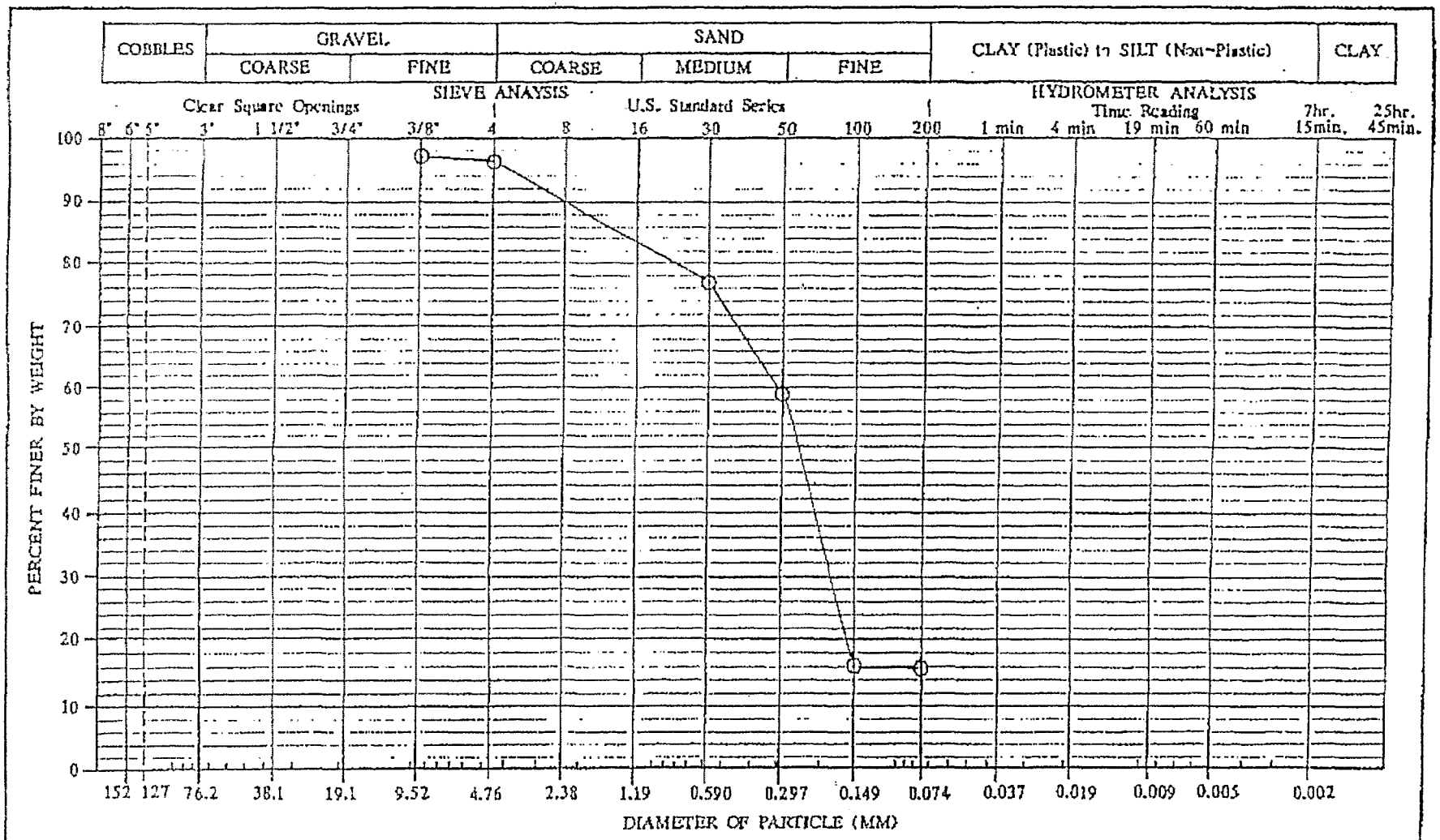
SYMBOL	BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS SYMBOL
○	MW2-3		35-55'			

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT 6544-97 | DATE FEB. 14, 1997

GRAIN SIZE DISTRIBUTION CURVES

RE: MW2-3 / Crown City Plating

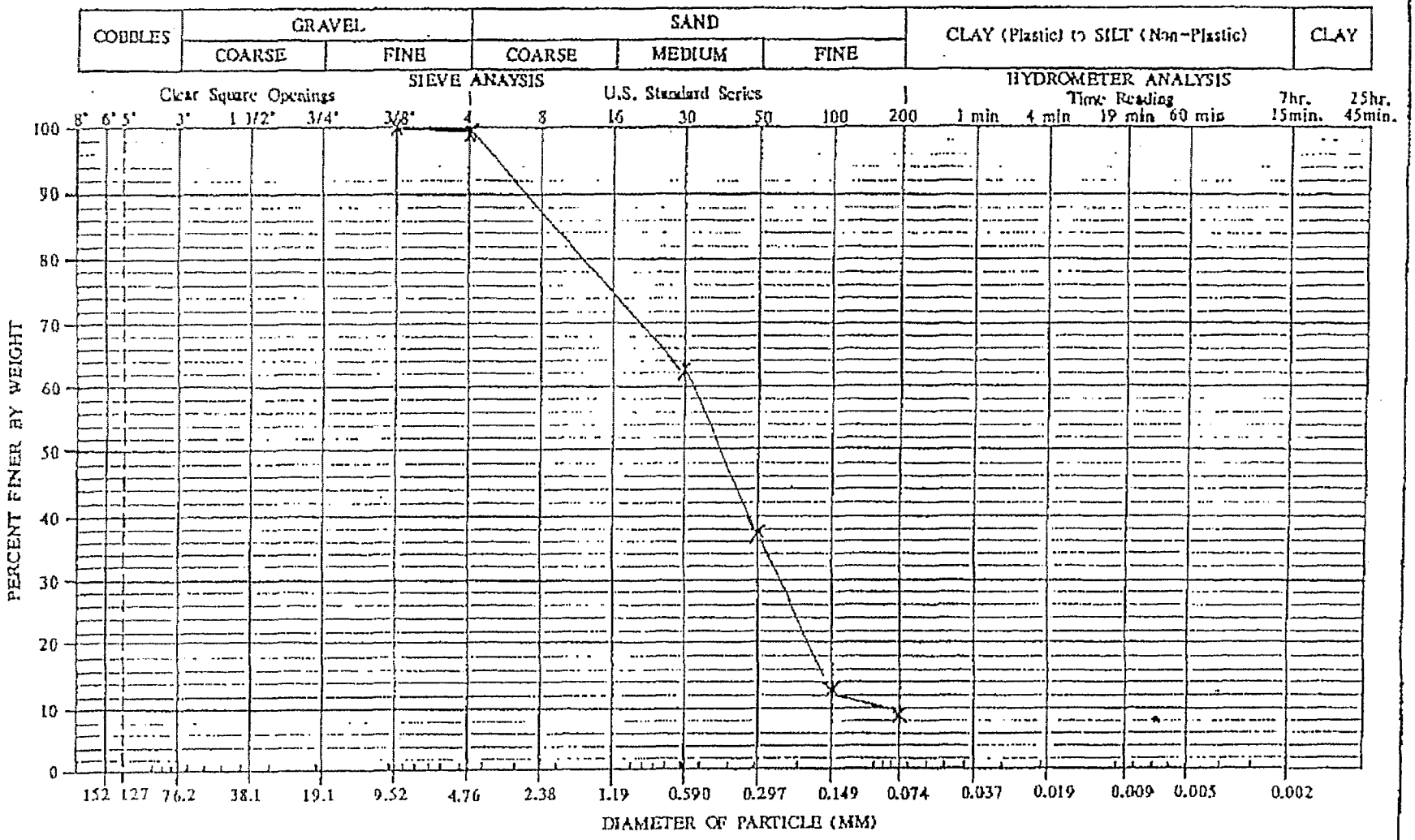


SYMBOL	BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS SYMBOL
O	HW		35'			

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT MANESS | DATE 2-6-97

GRAIN SIZE DISTRIBUTION CURVES

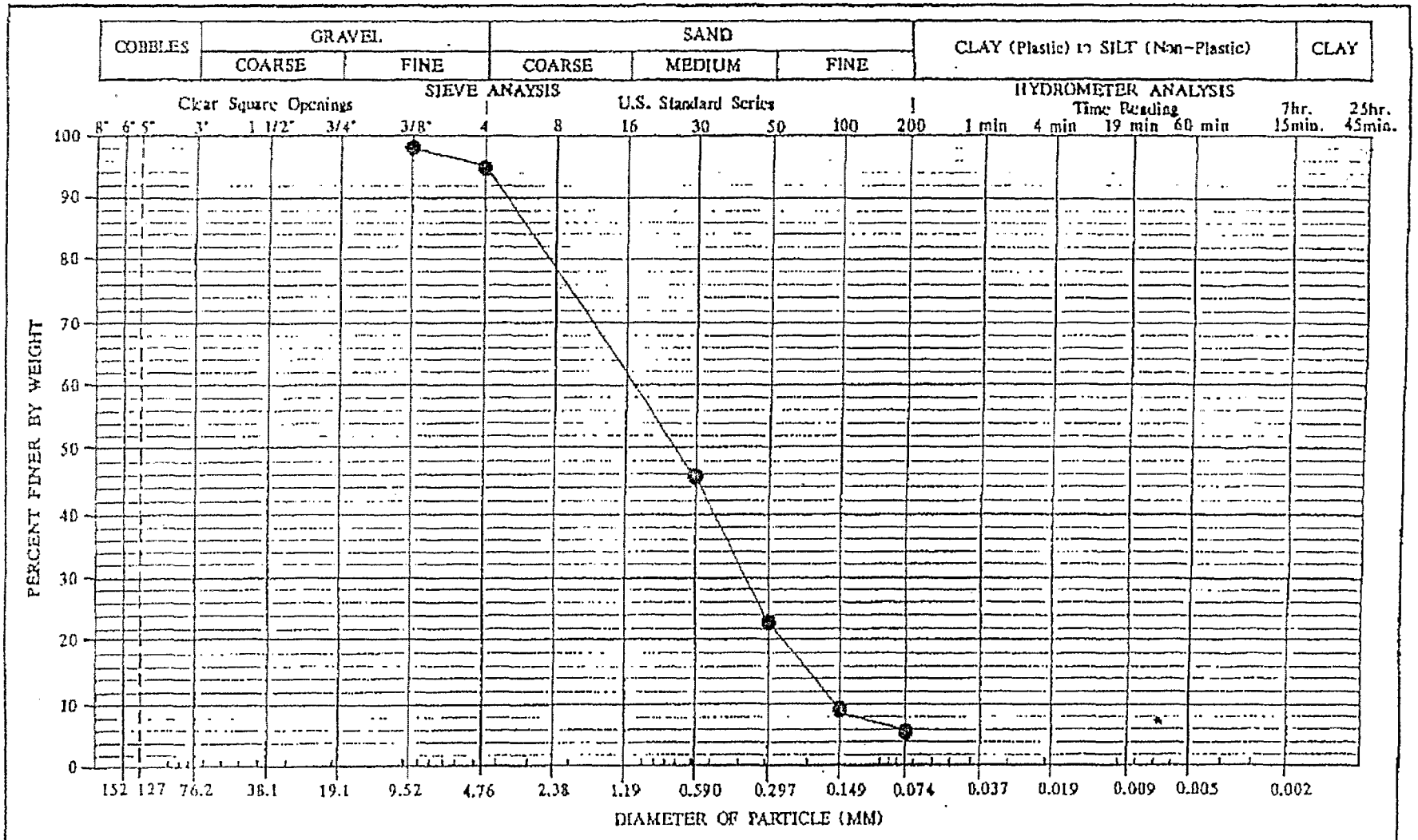


SYMBOL	BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS SYMBOL
X			40'			

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT MANESS | DATE 2-6-97

GRAIN SIZE DISTRIBUTION CURVES

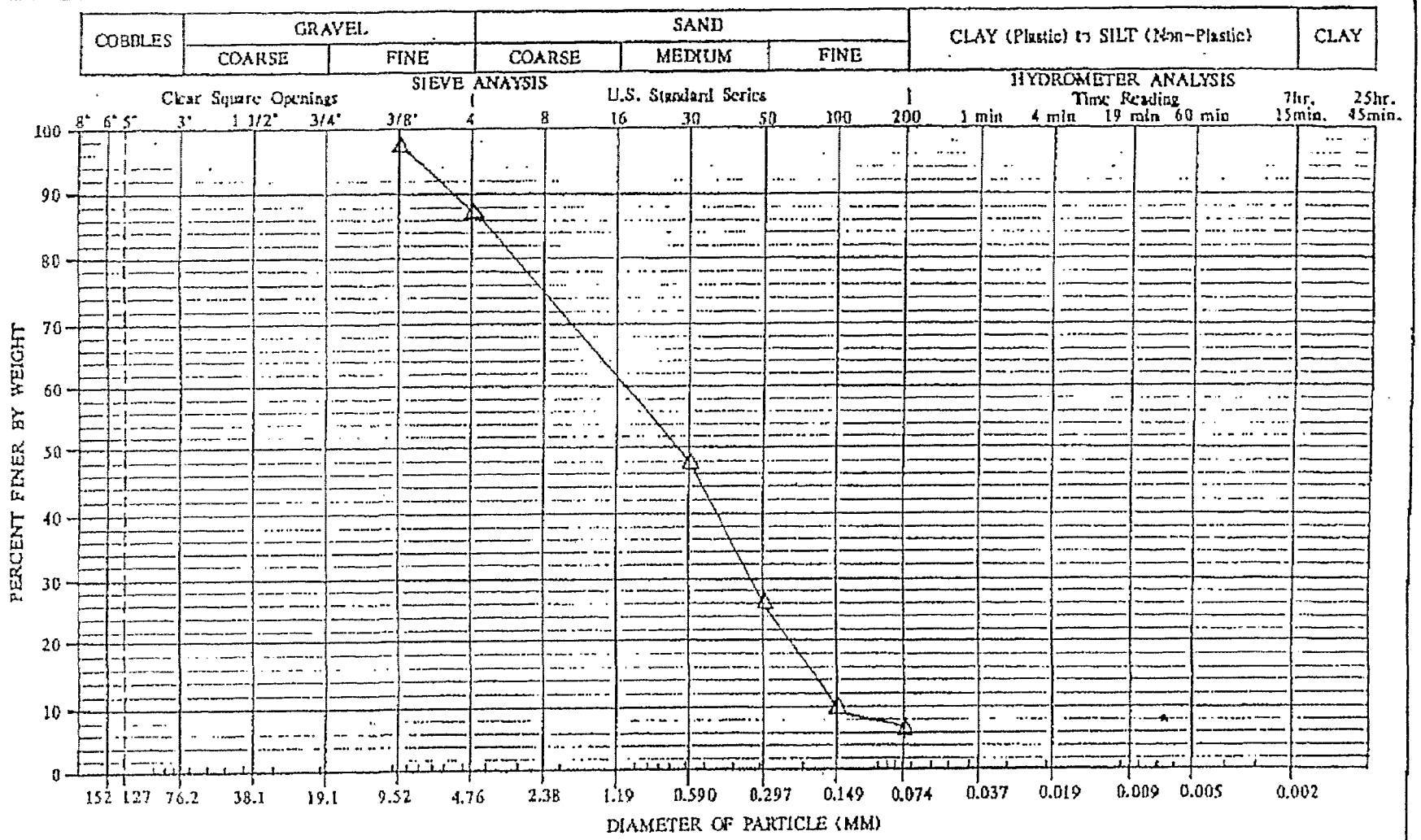


SYMBOL	BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS SYMBOL
●			45'			

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT MANESS | DATE 2-6-97

GRAIN SIZE DISTRIBUTION CURVES



SYMBOL	BORING NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS SYMBOL
△			50'			

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT MANESS | DATE 2-6-97

GRAIN SIZE DISTRIBUTION CURVES

APPENDIX C

NON-HAZARDOUS SOIL AND GROUNDWATER MANIFESTS

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
3-12-97		2409-2404		8345	1 1

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
CROWN CITY PLATING 4350 TEMPLE CITY BLVD. EL MONTE, CA.	818-444-9291 Person to Contact: LARRY DONOVAN FAX#: 818-442-4715	Customer Account Number with TPS: PROFILE # 5345
Consultant's Name and Billing Address:	**Consultant's Phone #:**	
MANESS ENVIRONMENTAL SERVICES, INC. 1101 E. SPRING ST. LONG BEACH, CA. 90806	310-595-4555 Person to Contact: RICHARD OKUDA FAX#: 310-492-6495	Customer Account Number with TPS: 1000369
Generation Site (Transport from): *(name & address)*	**Site Phone #:**	BTEX Levels
4350 TEMPLE CITY BL. EL MONTE, CA.	Person to Contact:	TPH Levels
	FAX#:	AVG. Levels
Designated Facility (Transport to): *(name & address)*	**Facility Phone #:**	Facility Permit Numbers
TPS TECHNOLOGIES 12328 HIBICUS AVE. ADELANTO, CA. 92301	800-862-8001 Person to Contact: DARREN BARTLETT FAX#: 619-862-8004	
Transporter Name and Mailing Address:	**Transporter's Phone #:**	Transporter's US EPA ID No.:
MANESS ENVIRONMENTAL SERVICES, INC. 1101 E. SPRING ST. LONG BEACH, CA. 90806	310-595-4555 Person to Contact: RICHARD OKUDA FAX#: 310-492-6495	Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			71160	47000	24160
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above: 17075

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name:	Generator ☒ Consultant ☐	Signature and date:	Month	Day	Year
Lawrence P. Donovan II			3	7	97

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
GREG MARISCAL		3	12	97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
	3-12-97

Please print or type.

TRANSPORTER'S COPY

#51298 2 of 4

NO. 6323

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME CROWN CITY PLATING

EPA I.D. NO.

ADDRESS 4350 TEMPLE CITY BLVD.

CITY, STATE, ZIP EL MONTE, CA.

PHONE NO. (818) 444-72

CONTAINERS: No. 1 VOLUME 380 WEIGHT GALLONS

TYPE: ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION GROUNDWATER

GENERATING PROCESS GROUNDWATER PURGING EVENT

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	PETROLEUM PRODUCTS		1	5.			
2.	WATER		99	6.			
3.				7.			
4.				8.			

PROPERTIES: pH ____ ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS WEAR PROPER PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

FILOMENA BUNDANG [signature] 2/28/97

TYPED OR PRINTED FULL NAME & SIGNATURE / DATE

TRANSPORTER

NAME MANESS ENVIRONMENTAL SERVICES, INC.

EPA I.D. NO. CAD 0 0 9 6 8 4 2 3 4

ADDRESS 1101 E. SPRING STREET

SERVICE ORDER NO.

CITY, STATE, ZIP LONG BEACH, CA. 90807

PICK UP DATE 2-27-97

PHONE NO. (310 595-4555

TRUCK, UNIT I.D. NO. 2302

ESTEL MCMASTER [signature] 2-27-97

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME CROSBY & OVERTON INC.

EPA I.D. NO. CAD 0 2 8 4 0 [illegible]

DISPOSAL METHOD

ADDRESS 1620 W. 16TH STREET

☐ LANDFILL ☐ OTHER [illegible]

CITY, STATE, ZIP LONG BEACH, CA. 90803

PROFILE# 14474 BILL MAN[illegible]

PHONE NO. (310) [illegible]-5445

[signature]

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS
TRANS		S B	
C/Q		RT / CD	HWDF NONE

DISCREPANCY

APPENDIX D

GROUNDWATER SAMPLING LOGS

WELL No.	SITE NAME:	DATE:	pH/Temp/Conductivity Meter:	Turbidimeter:
MW2-3	CROWN CITY PLATING COMPANY ADDRESS: North Vane Avenue & Olney Street, Rosemead, CA	2/18/97	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter

GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)
14:15	1	6.23	1.55	25.7	>999	0.01
14:42	13	6.43	1.51	25.7	572	0.48
15:23	26	6.44	1.57	25.1	194	0.31
15:40	32	6.46	1.57	24.3	10	0.35
16:04	39	6.47	1.57	24.8	10	0.29
16:14	43	6.49	1.60	24.1	10	0.40

Remarks: Approximately five (5) well volumes of groundwater removed.

Depth to Bottom of Well: (feet) 54.5'

Relative Recharge Rate (circle one): slow (moderate) fast very fast

SOLUTION STANDARDS

pH	CONDUCTIVITY
BRAND NAME: CALITECH Auto-Cal pH: 4.0	BRAND NAME: CALITECH Auto-Calibration SOLUTION: Potassium Hydrogen Phthalate CONCENTRATION: 4.49 mS/cm
BRAND NAME: pH:	
BRAND NAME: pH:	

INSTRUMENT CALIBRATION RECORD

	pH	RECORDING:	CONDUCTIVITY (MOHS) START UP:	CONDUCTIVITY (MOHS) RECORDING:
START UP:	4			
	7			
	10			
END:	4		END:	RECORDING:
	7			
	10			

AUTO - CALIBRATION

Well Box Elevation (feet above mean sea level)	Depth to Groundwater (feet)	Groundwater Elevation (feet above mean sea level)
257.045'	34.95'	222.095'

Sampler Name: Jeff Engels

Signature:

MANESS
CORPORATION
A DIVISION OF
MANESS INDUSTRIES
1101 EAST SPRING STREET, P.O.BOX 90939, LONG BEACH, CA. 90809
CONTRACTOR LICENSE NO 553633, (310) 595-4555 FAX (310) 492-6495

WELL No.	SITE NAME:	DATE:	pH/Temp/Conductivity Meter:	Turbidimeter:
MW2-4	CROWN CITY PLATING COMPANY ADDRESS: Gibson Road & Olney Street, El Monte, CA	2/11/97	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter

GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)
15:55	0.5	6.80	1.48	20.7	>999	0.01
16:15	20	6.28	1.54	21.1	380	1.00
16:35	40	6.50	1.56	18.2	220	1.00
16:50	60	7.07	1.55	20.8	5.7	1.33
17:10	80	6.92	1.60	19.9	3.8	1.00

Remarks: Approximately six (6) well volumes of groundwater removed.

Depth to Bottom of Well: (feet) 55'

Relative Recharge Rate (circle one)
slow moderate fast (very fast)

SOLUTION STANDARDS

pH	CONDUCTIVITY
BRAND NAME: CALITECH Auto-Cal pH: 4.0	BRAND NAME: CALITECH Auto-Calibration SOLUTION: Potassium Hydrogen Phthalate CONCENTRATION: 4.49 mS/cm
BRAND NAME: pH:	
BRAND NAME: pH:	

INSTRUMENT CALIBRATION RECORD

	pH	RECORDING:	CONDUCTIVITY (MOHS) START UP:	RECORDING:
START UP:	4			
	7			
	10			
END:	4		END:	RECORDING:
	7			
	10			

AUTO - CALIBRATION

Well Box Elevation (feet above mean sea level)	Depth to Groundwater (feet)	Groundwater Elevation (feet above mean sea level)
264.30'	37.10'	227.20'

Sampler Name: Gabriele Baader

Signature:

MANESS CORPORATION
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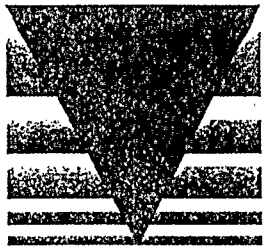
1101 EAST SPRING STREET, P.O. BOX 90939, LONG BEACH, CA. 90809
CONTRACTOR LICENSE NO.553633. (310) 595-4555 FAX (310) 497-6495

APPENDIX E

SOIL SAMPLE ANALYTICAL RESULTS WITH CHAIN-OF-CUSTODY LOGS



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-398

Received: 14 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-2	MW2-3 @5'	14 FEB 97
02-398-3	MW2-3 @10'	14 FEB 97
02-398-4	MW2-3 @15'	14 FEB 97
02-398-5	MW2-3 @20'	14 FEB 97
02-398-6	MW2-3 @25'	14 FEB 97

PARAMETER	02-398-2	02-398-3	02-398-4	02-398-5	02-398-6
Sample Held, Not Analyzed	HOLD	HOLD	HOLD	HOLD	HOLD

Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-398

Received: 14 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-7	MW2-3 @30'	14 FEB 97
02-398-8	MW2-3 @35'	14 FEB 97

PARAMETER	02-398-7	02-398-8
Sample Held, Not Analyzed	HOLD	HOLD

Greta Galoustian, Laboratory Director

: ORDER PLACED FOR CLIENT: Maness Environmental Services 9702398 :
: BC ANALYTICAL : GLEN LAB : 12:22:00 01 MAR 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9702398*1	MW2-3 BIN	DIG,NAQ.HCL	02.16.97	3050		97411	7093
		DIG,NAQ,GFA	02.16.97	3050		97412	7093
		AS,GFA	02.18.97	7060	534-07	97412	1002
		SB	02.17.97	6010	535-02	97411	7396
		BA	02.17.97	6010	535-02	97411	7396
		BE	02.17.97	6010	535-02	97411	7396
		CD	02.17.97	6010	535-02	97411	7396
		CR	02.17.97	6010	535-02	97411	7396
		CO	02.17.97	6010	535-02	97411	7396
		CU	02.17.97	6010	535-02	97411	7396
		PB	02.17.97	6010	535-02	97411	7396
		HG,SO	02.24.97	7471	534-06	97487	1002
		MO	02.17.97	6010	535-02	97411	7396
		NI	02.17.97	6010	535-02	97411	7396
		SE,GFA	02.17.97	7740	534-07	97412	1002
		AG	02.17.97	6010	535-02	97411	7396
		TL	02.17.97	6010	535-02	97411	7396
		V	02.17.97	6010	535-02	97411	7396
		ZN	02.17.97	6010	535-02	97411	7396
		IR.PETROHC	02.25.97	418.1	533-15	97299	8106
		8260.HSL	02.24.97	8260	537-03	9723106	7430
9702398*2	MW2-3 @5'	HOLD	02.21.97				8165
9702398*3	MW2-3 @10'	HOLD	02.21.97				8165
9702398*4	MW2-3 @15'	HOLD	02.21.97				8165
9702398*5	MW2-3 @20'	HOLD	02.21.97				8165
9702398*6	MW2-3 @25'	HOLD	02.21.97				8165
9702398*7	MW2-3 @30'	HOLD	02.21.97				8165
9702398*8	MW2-3 @35'	HOLD	02.21.97				8165

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

NON-AQUEOUS SAMPLES	------ METHOD BLANK ------				---------- LAB CONTROL ----------								---------- MATRIX QC ----------								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: IR*97299 Method: 418.1 - Petroleum Hydrocarbons, Total, Spectrophotometric, Infrared																						
TRPH	mg/kg	0	10	-	108	-	-	-	43	168	-	-	-	123	-	120	-	19	153	3	30	-
Batch: 97411 Method: 6010 - ICAP Metals																						
Silver	mg/kg	0.7	1	-	83	-	90	-	80	120	8	-	-	72	Q	72	Q	80	120	0	30	-
Barium	mg/kg	0	0.5	-	96	-	99	-	80	120	4	-	-	93	-	94	-	80	120	1	30	-
Beryllium	mg/kg	0	0.1	-	91	-	95	-	80	120	4	-	-	93	-	93	-	80	120	0	30	-
Cadmium	mg/kg	0	1	-	91	-	93	-	80	120	2	-	-	100	-	101	-	80	120	1	30	-
Cobalt	mg/kg	0	4	-	92	-	95	-	80	120	3	-	-	97	-	97	-	80	120	1	30	-
Chromium	mg/kg	0.2	1	-	91	-	94	-	80	120	4	-	-	96	-	97	-	80	120	1	30	-
Copper	mg/kg	0	2	-	91	-	95	-	80	120	4	-	-	126	Q	137	Q	80	120	7	30	-
Molybdenum	mg/kg	0	2	-	90	-	93	-	80	120	3	-	-	91	-	93	-	80	120	2	30	-
Nickel	mg/kg	0	4	-	90	-	93	-	80	120	4	-	-	95	-	101	-	80	120	5	30	-
Lead	mg/kg	0	5	-	85	-	90	-	80	120	6	-	-	95	-	93	-	80	120	2	30	-
Antimony	mg/kg	0	10	-	91	-	94	-	80	120	3	-	-	84	-	83	-	80	120	0	30	-
Thallium	mg/kg	0	7	-	92	-	96	-	80	120	4	-	-	93	-	92	-	80	120	1	30	-
Vanadium	mg/kg	0	4	-	91	-	95	-	80	120	4	-	-	100	-	101	-	80	120	1	30	-
Zinc	mg/kg	0	1	-	90	-	94	-	80	120	5	-	-	111	-	110	-	80	120	1	30	-
Batch: AS,GFA*97412 Method: 7060 - Arsenic, AA, Furnace																						
Arsenic	mg/kg	0	0.2	-	90	-	91	-	81	123	0	-	-	101	-	94	-	18	167	5	30	-
Batch: SE,GFA*97412 Method: 7740 - Selenium, AA, Furnace																						
Selenium	mg/kg	0	0.4	-	91	-	91	-	83	114	1	-	-	20	-	21	-	4	148	2	30	-
Batch: HG,SO*97487 Method: 7471 - Mercury (Solids), Cold Vapor AA, Manual																						
Mercury	mg/kg	0	0.1	-	99	-	100	-	83	124	0	-	-	106	-	89	-	40	143	16	30	-

NON-AQUEOUS SAMPLES	------ METHOD BLANK ------				--------------- LAB CONTROL ---------------									---------------- MATRIX QC ----------------								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: 8260*9723106 Method: 8260 - Volatile Organics, GCMS																						
1,1,1,2-Tetrachloroethane	mg/kg	0	0.005	-	99	-	92	-	71	139	6	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0	0.005	-	91	-	100	-	70	135	10	-	-	100	-	106	-	71	141	6	35	-
1,1,2,2-Tetrachloroethane	mg/kg	0	0.005	-	105	-	114	Q	71	105	8	-	-	141	-	129	-	1	156	9	40	-
1,1,2-Trichloroethane	mg/kg	0	0.005	-	101	-	105	-	68	133	4	-	-	111	-	113	-	65	142	2	36	-
1,1-Dichloroethane	mg/kg	0	0.005	-	102	-	106	-	55	131	4	-	-	105	-	113	-	50	141	8	33	-
1,1-Dichloroethene	mg/kg	0	0.005	-	98	-	109	-	58	131	11	-	-	106	-	109	-	61	142	2	35	-
1,1-Dichloropropene	mg/kg	0	0.005	-	91	-	96	-	68	135	5	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	0	0.005	-	92	-	94	-	62	139	2	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0	0.005	-	94	-	98	-	49	132	5	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0	0.005	-	91	-	91	-	66	135	0	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	0	0.005	-	95	-	93	-	78	128	2	-	-	102	-	101	-	74	135	1	38	-
1,2-Dibromo-3-chloropropane	mg/kg	0	0.005	-	94	-	107	-	50	146	13	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	mg/kg	0	0.005	-	101	-	105	-	64	140	4	-	-	108	-	115	-	61	153	6	36	-
1,2-Dichloroethane	mg/kg	0	0.005	-	99	-	100	-	85	108	1	-	-	104	-	109	-	68	136	5	35	-
1,2-Dichlorobenzene	mg/kg	0	0.005	-	97	-	94	-	73	128	3	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0	0.005	-	101	-	100	-	62	130	1	-	-	105	-	107	-	65	134	2	34	-
1,3,5-Trimethylbenzene	mg/kg	0	0.005	-	92	-	92	-	75	131	0	-	-	102	-	99	-	69	141	3	39	-
1,3-Dichlorobenzene	mg/kg	0	0.005	-	98	-	93	-	74	128	5	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	0	0.005	-	100	-	99	-	74	125	1	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0	0.005	-	96	-	90	-	73	130	6	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	0	0.005	-	107	-	88	-	62	139	19	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	0	0.005	-	93	-	92	-	63	138	1	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	0	0.05	-	78	-	86	-	23	166	10	-	-	76	-	100	-	1	255	28	30	-
4-Chlorotoluene	mg/kg	0	0.005	-	93	-	89	-	67	139	4	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	0	0.1	-	69	-	70	-	32	180	1	-	-	242	Q	230	Q	9	221	5	68	-
Bromobenzene	mg/kg	0	0.005	-	95	-	95	-	69	122	0	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	0	0.005	-	107	-	106	-	72	129	1	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0	0.005	-	99	-	97	-	67	134	1	-	-	97	-	103	-	66	142	6	37	-
Bromomethane	mg/kg	0	0.005	-	83	-	86	-	67	129	4	-	-	41	Q	56	Q	57	133	31	39	-
Benzene	mg/kg	0	0.005	-	100	-	99	-	76	123	2	-	-	98	-	103	-	73	129	5	36	-
Bromoform	mg/kg	0	0.005	-	100	-	101	-	61	148	1	-	-	106	-	112	-	48	169	5	48	-
Chlorobenzene	mg/kg	0	0.005	-	101	-	94	-	70	140	7	-	-	95	-	98	-	67	146	3	38	-
Carbon Tetrachloride	mg/kg	0	0.005	-	84	-	107	-	70	140	24	-	-	108	-	108	-	68	156	0	38	-
Chloroethane	mg/kg	0	0.005	-	99	-	108	-	54	135	8	-	-	97	-	103	-	47	145	5	38	-
Chloroform	mg/kg	0	0.005	-	102	-	101	-	70	128	1	-	-	100	-	108	-	76	129	8	36	-
Chloromethane	mg/kg	0	0.005	-	92	-	96	-	40	136	4	-	-	5	Q	13	Q	39	152	95	32	Q
Carbon Disulfide	mg/kg	0	0.01	-	92	-	102	-	54	135	10	-	-	95	-	104	-	17	194	8	28	-

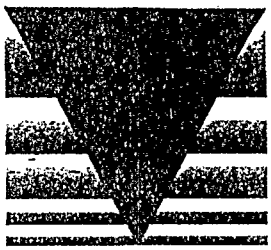
NON-AQUEOUS SAMPLES	------ METHOD BLANK ------				---------- LAB CONTROL ----------									---------- MATRIX QC ----------								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: 8260*9723106 Method: 8260 - Volatile Organics, GCMS, con't																						
Dibromochloromethane	mg/kg	0	0.005	-	98	-	97	-	65	148	1	-	-	101	-	105	-	59	159	4	40	-
Dibromomethane	mg/kg	0	0.005	-	100	-	106	-	66	137	6	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	0	0.005	-	79	-	102	-	33	148	26	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0	0.005	-	98	-	93	-	77	137	5	-	-	95	-	101	-	74	144	7	36	-
Freon 113	mg/kg	0	0.01	-	82	-	102	-	62	148	22	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0	0.005	-	75	-	92	-	63	139	21	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	0	0.005	-	93	-	93	-	75	136	0	-	-	-	-	-	-	-	-	-	-	-
Methyl ethyl ketone	mg/kg	0	0.03	-	73	-	89	-	21	157	20	-	-	314	Q	272	Q	3	182	14	45	-
Methyl isobutyl ketone	mg/kg	0	0.03	-	102	-	124	-	16	163	20	-	-	125	-	129	-	-	-	3	-	-
Methylene chloride	mg/kg	0	0.005	-	104	-	100	-	60	126	4	-	-	98	-	105	-	61	126	7	30	-
N-Butylbenzene	mg/kg	0	0.005	-	85	-	94	-	77	133	10	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	0	0.005	-	91	-	92	-	77	132	1	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0	0.005	-	95	-	102	-	55	149	8	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0	0.005	-	100	-	95	-	75	134	6	-	-	90	-	97	-	72	138	8	39	-
Trichloroethene	mg/kg	0	0.005	-	96	-	99	-	71	157	3	-	-	102	-	108	-	53	198	6	30	-
Trichlorofluoromethane	mg/kg	0	0.005	-	81	-	101	-	58	149	22	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0	0.005	-	99	-	100	-	70	131	1	-	-	101	-	107	-	68	136	6	34	-
Tetrachloroethene	mg/kg	0	0.005	-	94	-	94	-	69	148	0	-	-	100	-	101	-	68	153	1	40	-
Vinyl acetate	mg/kg	0	0.05	-	110	-	121	-	29	146	9	-	-	44	-	34	-	-	-	25	-	-
Vinyl chloride	mg/kg	0	0.005	-	94	-	99	-	57	133	5	-	-	100	-	102	-	47	156	2	47	-
cis-1,2-Dichloroethene	mg/kg	0	0.005	-	103	-	104	-	58	134	1	-	-	102	-	108	-	56	140	6	32	-
cis-1,3-Dichloropropene	mg/kg	0	0.005	-	99	-	93	-	67	130	6	-	-	91	-	94	-	63	134	4	32	-
m- and p-Xylene Isomers	mg/kg	0	0.005	-	97	-	94	-	75	145	4	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0	0.005	-	99	-	93	-	76	134	6	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyl toluene	mg/kg	0	0.005	-	88	-	94	-	76	136	6	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	0	0.005	-	87	-	93	-	77	137	7	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	0	0.005	-	99	-	101	-	48	141	2	-	-	96	-	107	-	61	128	12	35	-
trans-1,3-Dichloropropene	mg/kg	0	0.005	-	93	-	91	-	70	127	2	-	-	90	-	94	-	56	138	4	39	-
tert-Butylbenzene	mg/kg	0	0.005	-	90	-	93	-	77	130	3	-	-	-	-	-	-	-	-	-	-	-
[4-Bromofluorobenzene]	Percent	95	-	-	101	-	105	-	74	121	-	-	-	97	-	101	-	74	121	-	-	-
[Toluene-d8]	Percent	108	-	-	107	-	108	-	82	118	-	-	-	108	-	110	-	82	118	-	-	-
[Dibromofluoromethane]	Percent	96	-	-	105	-	108	-	75	116	-	-	-	109	-	107	-	75	116	-	-	-

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 12:23:02 01 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702398*1							
8260	Dibromofluoromethane Rep.	9723106	02/24/97	0.0512	0.0500	102	
	Toluene-d8	9723106	02/24/97	0.0542	0.0500	108	
	4-Bromofluorobenzene Rep.	9723106	02/24/97	0.0509	0.0500	102	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 12:23:02 01 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
B7021492*1*MB							
8260	Dibromofluoromethane Rep.	9723106	02/23/97	0.0482	0.0500	96	
	Toluene-d8	9723106	02/23/97	0.0541	0.0500	108	
	4-Bromofluorobenzene Rep.	9723106	02/23/97	0.0475	0.0500	95	
C7022811*1*LC							
8260	Dibromofluoromethane Rep.	9723106	02/23/97	0.0527	0.0500	105	
	Toluene-d8	9723106	02/23/97	0.0534	0.0500	107	
	4-Bromofluorobenzene Rep.	9723106	02/23/97	0.0507	0.0500	101	
C7022811*1*LT							
8260	Dibromofluoromethane Rep.	9723106	02/23/97	0.0500	0.0500	100	
	Toluene-d8	9723106	02/23/97	0.0500	0.0500	100	
	4-Bromofluorobenzene Rep.	9723106	02/23/97	0.0500	0.0500	100	
C7022812*1*LC							
8260	Dibromofluoromethane Rep.	9723106	02/23/97	0.0542	0.0500	108	
	Toluene-d8	9723106	02/23/97	0.0541	0.0500	108	
	4-Bromofluorobenzene Rep.	9723106	02/23/97	0.0525	0.0500	105	
C7022812*1*LT							
3260	Dibromofluoromethane Rep.	9723106	02/23/97	0.0500	0.0500	100	
	Toluene-d8	9723106	02/23/97	0.0500	0.0500	100	
	4-Bromofluorobenzene Rep.	9723106	02/23/97	0.0500	0.0500	100	



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ANALYTICAL REPORT

LOG NO: G97-02-178

Received: 07 FEB 97

Mailed: FEB 19 1997

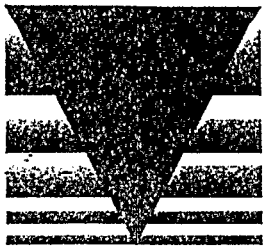
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-1	MW2-4 @30'	06 FEB 97
02-178-2	MW2-4 @45'	06 FEB 97
02-178-4	MW2-4 @5'	06 FEB 97
02-178-5	MW2-4 @10'	06 FEB 97
02-178-6	MW2-4 @15'	06 FEB 97

PARAMETER	02-178-1	02-178-2	02-178-4	02-178-5	02-178-6
Sample Held, Not Analyzed	HOLD	HOLD	HOLD	HOLD	HOLD



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-178

Received: 07 FEB 97

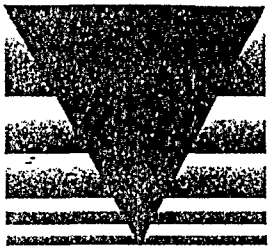
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-7	MW2-4 @20'	06 FEB 97
02-178-8	MW2-4 @25'	06 FEB 97
02-178-9	MW2-4 @35'	06 FEB 97
02-178-10	MW2-4 @40'	06 FEB 97
02-178-11	MW2-4 @50'	06 FEB 97

PARAMETER	02-178-7	02-178-8	02-178-9	02-178-10	02-178-11
Sample Held, Not Analyzed	HOLD	HOLD	HOLD	HOLD	HOLD



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-178

Received: 07 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-12	MW2-4 @55'	06 FEB 97

PARAMETER	02-178-12
Sample Held, Not Analyzed	HOLD

Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-178

Received: 07 FEB 97

Ms. Gabriele Baader
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1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

Greta Galoustian, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

: ORDER PLACED FOR CLIENT: Maness Environmental Services 9702178 :
: BC ANALYTICAL : GLEN LAB : 08:30:32 19 FEB 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9702178*1	MW2-4 @30'	HOLD	02.18.97				8165
9702178*2	MW2-4 @45'	HOLD	02.18.97				8165
9702178*4	MW2-4 @5'	HOLD	02.18.97				8165
9702178*5	MW2-4 @10'	HOLD	02.18.97				8165
9702178*6	MW2-4 @15'	HOLD	02.18.97				8165
9702178*7	MW2-4 @20'	HOLD	02.18.97				8165
9702178*8	MW2-4 @25'	HOLD	02.18.97				8165
9702178*9	MW2-4 @35'	HOLD	02.18.97				8165
9702178*10	MW2-4 @40'	HOLD	02.18.97				8165
9702178*11	MW2-4 @50'	HOLD	02.18.97				8165
9702178*12	MW2-4 @55'	HOLD	02.18.97				8165
9702178*3	MW2-4 BIN	DIG,NAQ.HCL	02.09.97	3050		97350	7093
		DIG,NAQ,GFA	02.09.97	3050		97355	7093
		AS,GFA	02.11.97	7060	534-04	97355	7396
		SB	02.10.97	6010	535-02	97350	8501
		BA	02.10.97	6010	535-02	97350	8501
		BE	02.10.97	6010	535-02	97350	8501
		CD	02.10.97	6010	535-02	97350	8501
		CR	02.10.97	6010	535-02	97350	8501
		CO	02.10.97	6010	535-02	97350	8501
		CU	02.10.97	6010	535-02	97350	8501
		PB	02.10.97	6010	535-02	97350	8501
		HG,SO	02.11.97	7471	534-06	97370	8488
		MO	02.10.97	6010	535-02	97350	8501
		NI	02.10.97	6010	535-02	97350	8501
		SE,GFA	02.11.97	7740	534-04	97355	7396
		AG	02.10.97	6010	535-02	97350	8501
		TL	02.10.97	6010	535-02	97350	8501
		V	02.10.97	6010	535-02	97350	8501
		ZN	02.10.97	6010	535-02	97350	8501
		IR.PETROHC	02.12.97	418.1	533-17	97285	8106
		8260.HSL	02.11.97	8260	537-03	9723078	7430

**

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

NON-AQUEOUS SAMPLES		METHOD BLANK			LAB CONTROL									MATRIX QC								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: IR*97285 Method: 418.1 - Petroleum Hydrocarbons, Total, Spectrophotometric, Infrared																						
TRPH	mg/kg	0	10	-	76	-	-	-	43	168	-	-	-	100	-	99	-	19	153	1	30	-
Batch: 97350 Method: 6010 - ICAP Metals																						
Silver	mg/kg	0	1	-	85	-	87	-	80	120	2	-	-	70	Q	70	Q	80	120	1	30	-
Barium	mg/kg	0.10	0.5	-	93	-	92	-	80	120	0	-	-	-	NC	-	NC	80	120	-	30	NC
Beryllium	mg/kg	0	0.1	-	92	-	92	-	80	120	0	-	-	88	-	88	-	80	120	0	30	-
Cadmium	mg/kg	0	1	-	94	-	94	-	80	120	0	-	-	84	-	83	-	80	120	1	30	-
Cobalt	mg/kg	0	4	-	94	-	94	-	80	120	0	-	-	81	-	83	-	80	120	2	30	-
Chromium	mg/kg	0.4	1	-	93	-	93	-	80	120	0	-	-	-	NC	-	NC	80	120	-	30	NC
Copper	mg/kg	0	2	-	90	-	89	-	80	120	1	-	-	-	NC	-	NC	80	120	-	30	NC
Molybdenum	mg/kg	0	2	-	94	-	95	-	80	120	1	-	-	80	-	61	Q	80	120	15	30	-
Nickel	mg/kg	1.2	4	-	95	-	96	-	80	120	2	-	-	100	-	49	Q	80	120	23	30	-
Lead	mg/kg	1.0	5	-	93	-	95	-	80	120	3	-	-	-	NC	-	NC	80	120	-	30	NC
Antimony	mg/kg	0	10	-	96	-	96	-	80	120	1	-	-	85	-	82	-	80	120	3	30	-
Thallium	mg/kg	0	7	-	95	-	93	-	80	120	1	-	-	85	-	85	-	80	120	1	30	-
Vanadium	mg/kg	0	4	-	91	-	92	-	80	120	1	-	-	84	-	85	-	80	120	1	30	-
Zinc	mg/kg	1.3	1	Q	92	-	93	-	80	120	1	-	-	-	NC	-	NC	80	120	-	30	NC
Batch: AS,GFA*97355 Method: 7060 - Arsenic, AA, Furnace																						
Arsenic	mg/kg	0	0.2	-	100	-	98	-	81	123	3	-	-	-	NC	-	NC	18	167	-	30	NC
Batch: SE,GFA*97355 Method: 7740 - Selenium, AA, Furnace																						
Selenium	mg/kg	0	0.4	-	88	-	85	-	83	114	4	-	-	74	-	68	-	4	148	8	30	-
Batch: HG,SO*97370 Method: 7471 - Mercury (Solids), Cold Vapor AA, Manual																						
Mercury	mg/kg	0	0.1	-	85	-	94	-	83	124	10	-	-	164	Q	124	-	40	143	21	30	-

NON-AQUEOUS SAMPLES	------ METHOD BLANK ------				---------- LAB CONTROL ----------								---------- MATRIX QC ----------									
					LCS		LCSD					RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: 8260*9723078 Method: 8260 - Volatile Organics, GCMS																						
1,1,1,2-Tetrachloroethane	mg/kg	0	0.005	-	89	-	96	-	71	139	8	38	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	0	0.005	-	81	-	88	-	70	135	9	35	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	0	0.005	-	85	-	80	-	71	105	6	40	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	0	0.005	-	86	-	92	-	68	133	6	36	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	0	0.005	-	96	-	98	-	55	131	2	33	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	0	0.005	-	94	-	79	-	58	131	18	35	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	0	0.005	-	85	-	91	-	68	135	8	34	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	0	0.005	-	89	-	96	-	62	139	8	44	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0	0.005	-	83	-	83	-	49	132	0	42	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0	0.005	-	93	-	97	-	66	135	4	43	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	0	0.005	-	94	-	100	-	78	128	6	38	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0	0.005	-	71	-	78	-	50	146	10	42	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	mg/kg	0	0.005	-	81	-	88	-	64	140	9	36	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	0	0.005	-	84	Q	90	-	85	108	7	35	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0	0.005	-	95	-	99	-	73	128	5	41	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0	0.005	-	91	-	95	-	62	130	5	34	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	0	0.005	-	94	-	99	-	75	131	5	39	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0	0.005	-	96	-	98	-	74	128	2	40	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	0	0.005	-	85	-	89	-	74	125	4	37	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0	0.005	-	96	-	97	-	73	130	2	39	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	0	0.005	-	-	-	90	-	62	139	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	0	0.005	-	103	-	118	-	63	138	13	36	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	0	0.05	-	93	-	92	-	23	166	1	30	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	0	0.005	-	94	-	101	-	67	139	7	40	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	0	0.1	-	98	-	79	-	32	180	21	68	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	0	0.005	-	94	-	98	-	69	122	4	39	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	0	0.005	-	89	-	95	-	72	129	7	29	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0	0.005	-	81	-	93	-	67	134	14	37	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	0	0.005	-	94	-	95	-	67	129	2	39	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	0	0.005	-	91	-	95	-	76	123	5	36	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	0	0.005	-	78	-	83	-	61	148	6	48	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	0	0.005	-	93	-	100	-	70	140	7	38	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	mg/kg	0	0.005	-	39	Q	85	-	70	140	74	38	Q	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	0	0.005	-	94	-	93	-	54	135	0	38	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	0	0.005	-	99	-	95	-	70	128	4	36	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	0	0.005	-	111	-	100	-	40	136	10	32	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	mg/kg	0	0.01	-	92	-	83	-	54	135	10	28	-	-	-	-	-	-	-	-	-	-

NON-AQUEOUS SAMPLES		METHOD BLANK			LAB CONTROL								MATRIX QC									
					LCS		LCSD					RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: 8260*9723078 Method: 8260 - Volatile Organics, GCMS, con't																						
Dibromochloromethane	mg/kg	0	0.005	-	82	-	91	-	65	148	11	40	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	0	0.005	-	83	-	89	-	66	137	6	39	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	0	0.005	-	67	-	88	-	33	148	27	41	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	0	0.005	-	91	-	97	-	77	137	7	36	-	-	-	-	-	-	-	-	-	-
Freon 113	mg/kg	0	0.01	-	77	-	83	-	62	148	7	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0	0.005	-	76	-	97	-	63	139	25	59	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	0	0.005	-	93	-	93	-	75	135	1	40	-	-	-	-	-	-	-	-	-	-
Methyl ethyl ketone	mg/kg	0	0.03	-	100	-	90	-	21	157	11	45	-	-	-	-	-	-	-	-	-	-
Methyl isobutyl ketone	mg/kg	0	0.03	-	59	-	82	-	16	163	32	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	0	0.005	-	98	-	94	-	60	126	4	30	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	0	0.005	-	84	-	93	-	77	133	10	50	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	0	0.005	-	90	-	91	-	77	132	1	40	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0	0.005	-	78	-	88	-	55	149	11	34	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0	0.005	-	90	-	100	-	75	134	11	39	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0	0.005	-	90	-	93	-	71	157	4	30	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	0	0.005	-	78	-	79	-	58	149	2	37	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	0	0.005	-	87	-	98	-	70	131	12	34	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	0	0.005	-	89	-	89	-	69	148	0	40	-	-	-	-	-	-	-	-	-	-
Vinyl acetate	mg/kg	0	0.05	-	79	-	77	-	29	146	3	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0	0.005	-	85	-	86	-	57	133	1	47	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0	0.005	-	97	-	95	-	58	134	3	32	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	0	0.005	-	81	-	98	-	67	130	19	32	-	-	-	-	-	-	-	-	-	-
m- and p-Xylene Isomers	mg/kg	0	0.005	-	89	-	96	-	75	145	8	38	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	0	0.005	-	91	-	100	-	76	134	10	38	-	-	-	-	-	-	-	-	-	-
p-Isopropyl toluene	mg/kg	0	0.005	-	90	-	96	-	76	136	6	47	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	0	0.005	-	88	-	92	-	77	137	5	46	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	0	0.005	-	99	-	92	-	48	141	8	35	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	0	0.005	-	68	Q	91	-	70	127	29	39	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	0	0.005	-	92	-	95	-	77	130	3	40	-	-	-	-	-	-	-	-	-	-
[4-Bromofluorobenzene]	Percent	87	-	-	91	-	105	-	74	121	-	-	-	-	-	-	-	-	-	-	-	-
[Toluene-d8]	Percent	93	-	-	92	-	104	-	82	118	-	-	-	-	-	-	-	-	-	-	-	-
[Dibromofluoromethane]	Percent	85	-	-	97	-	102	-	75	116	-	-	-	-	-	-	-	-	-	-	-	-

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 08:32:09 19 FEB 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702178*3							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0398	0.0500	80	
	Toluene-d8	9723078	02/11/97	0.0419	0.0500	84	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0422	0.0500	84	

SURROGATE RECOVERIES :

: BC ANALYTICAL : GLEN LAB : 08:32:10 19 FEB 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
7702764*1*MB							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0423	0.0500	85	
	Toluene-d8	9723078	02/11/97	0.0467	0.0500	93	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0434	0.0500	87	
C7021486*1*LC							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0486	0.0500	97	
	Toluene-d8	9723078	02/11/97	0.0460	0.0500	92	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0454	0.0500	91	
C7021486*1*LT							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0500	0.0500	100	
	Toluene-d8	9723078	02/11/97	0.0500	0.0500	100	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0500	0.0500	100	
C7021491*1*LC							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0512	0.0500	102	
	Toluene-d8	9723078	02/11/97	0.0522	0.0500	104	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0525	0.0500	105	
7021491*1*LT							
8260	Dibromofluoromethane Rep.	9723078	02/11/97	0.0500	0.0500	100	
	Toluene-d8	9723078	02/11/97	0.0500	0.0500	100	
	4-Bromofluorobenzene Rep.	9723078	02/11/97	0.0500	0.0500	100	

Acronyms and Flag Definitions

Flag Definitions

J = Estimated value. Used for sample results greater than or equal to MDL, but less the PQL.

B = Blank contamination. Used when associated method blank concentration is greater than the PQL.

Q = Quality objectives were not met. Used for Method Blank, Laboratory Control Samples, Matrix Spikes, Matrix Duplicates and Surrogates.

* = Replicate values. Used when replicate results are entered into the MS/MSD column of the QC report.

NC = Not Calculated. Used when sample result is greater than two times the spike ammount added, or when extracted surrogates were diluted at least 1:10.

Acronyms

MB = Method Blank

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

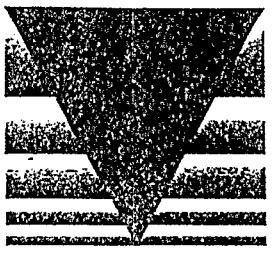
%REC = Percent Recovery

FLG = Flag

LCL = Lower Control Limit

UCL = Upper Control Limit

RPD = Relative Percent Difference



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-178

Received: 07 FEB 97

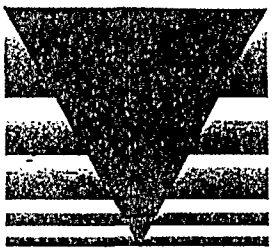
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-3	MW2-4 BIN	06 FEB 97

PARAMETER	02-178-3
Digestion (3050), Date	02/09/97
Furnace Digestion (3050), Date	02/09/97
Arsenic (7060), mg/kg	2.3
Antimony (6010), mg/kg	<10
Barium (6010), mg/kg	29
Beryllium (6010), mg/kg	0.13
Cadmium (6010), mg/kg	<0.5
Chromium (6010), mg/kg	7.7
Cobalt (6010), mg/kg	4.3
Copper (6010), mg/kg	8.7
Lead (6010), mg/kg	<5
Mercury (7471), mg/kg	<0.1
Molybdenum (6010), mg/kg	<2
Nickel (6010), mg/kg	5.7
Selenium (7740), mg/kg	<0.4
Silver (6010), mg/kg	<1
Thallium (6010), mg/kg	<7
Vanadium (6010), mg/kg	13
Zinc (6010), mg/kg	26
TRPH (418.1), mg/kg	<10



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Long Beach, CA 90806

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REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-3	MW2-4 BIN	06 FEB 97

PARAMETER	02-178-3
Vol.Pri.Poll. (8260)	
Date Analyzed	02/11/97
Dilution Factor, Times	1
1,1,1,2-Tetrachloroethane, mg/kg	<0.005
1,1,1-Trichloroethane, mg/kg	<0.005
1,1,2,2-Tetrachloroethane, mg/kg	<0.005
1,1,2-Trichloroethane, mg/kg	<0.005
1,1-Dichloroethane, mg/kg	<0.005
1,1-Dichloroethene, mg/kg	<0.005
1,1-Dichloropropene, mg/kg	<0.005
1,2,3-Trichlorobenzene, mg/kg	<0.005
1,2,3-Trichloropropane, mg/kg	<0.005
1,2,4-Trichlorobenzene, mg/kg	<0.005
1,2,4-Trimethylbenzene, mg/kg	<0.005
1,2-Dibromo-3-chloropropane, mg/kg	<0.005
1,2-Dibromoethane, mg/kg	<0.005
1,2-Dichloroethane, mg/kg	<0.005
1,2-Dichlorobenzene, mg/kg	<0.005
1,2-Dichloropropane, mg/kg	<0.005
1,3,5-Trimethylbenzene, mg/kg	<0.005
1,3-Dichlorobenzene, mg/kg	<0.005
1,3-Dichloropropane, mg/kg	<0.005
1,4-Dichlorobenzene, mg/kg	<0.005
2,2-Dichloropropane, mg/kg	<0.005
2-Chlorotoluene, mg/kg	<0.005
2-Hexanone, mg/kg	<0.05
4-Chlorotoluene, mg/kg	<0.005

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LOG NO: G97-02-178

Received: 07 FEB 97

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1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-3	MW2-4 BIN	06 FEB 97

PARAMETER	02-178-3
Acetone, mg/kg	<0.1
Bromobenzene, mg/kg	<0.005
Bromochloromethane, mg/kg	<0.005
Bromodichloromethane, mg/kg	<0.005
Bromomethane, mg/kg	<0.005
Benzene, mg/kg	<0.005
Bromoform, mg/kg	<0.005
Chlorobenzene,,mg/kg	<0.005
Carbon Tetrachloride, mg/kg	<0.005
Chloroethane, mg/kg	<0.005
Chloroform, mg/kg	<0.005
Chloromethane, mg/kg	<0.005
Carbon Disulfide, mg/kg	<0.01
Dibromochloromethane, mg/kg	<0.005
Dibromomethane, mg/kg	<0.005
Dichlorodifluoromethane, mg/kg	<0.005
Ethylbenzene, mg/kg	<0.005
Freon 113, mg/kg	<0.01
Hexachlorobutadiene, mg/kg	<0.005
Isopropylbenzene, mg/kg	<0.005
Methyl ethyl ketone, mg/kg	<0.03
Methyl isobutyl ketone, mg/kg	<0.03
Methylene chloride, mg/kg	<0.005
N-Butylbenzene, mg/kg	<0.005
N-Propylbenzene, mg/kg	<0.005
Naphthalene, mg/kg	<0.005
Styrene, mg/kg	<0.005

LOG NO: G97-02-178

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Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-178-3	MW2-4 BIN	06 FEB 97

PARAMETER	02-178-3
Trichloroethene, mg/kg	<0.005
Trichlorofluoromethane, mg/kg	<0.005
Toluene, mg/kg	<0.005
Tetrachloroethene, mg/kg	<0.005
Vinyl acetate, mg/kg	<0.05
Vinyl chloride, mg/kg	<0.005
cis-1,2-Dichloroethene, mg/kg	<0.005
cis-1,3-Dichloropropene, mg/kg	<0.005
m- and p-Xylene Isomers, mg/kg	<0.005
o-Xylene, mg/kg	<0.005
p-Isopropyl toluene, mg/kg	<0.005
sec-Butylbenzene, mg/kg	<0.005
trans-1,2-Dichloroethene, mg/kg	<0.005
trans-1,3-Dichloropropene, mg/kg	<0.005
tert-Butylbenzene, mg/kg	<0.005
Other Vol.Pri.Poll. (8260)	---
Surrogates **	
4-Bromofluorobenzene Rep., mg/kg	0.0422
4-Bromofluorobenzene Theo., mg/kg	0.0500
Toluene-d8 Reported, mg/kg	0.0419
Toluene-d8 Theo., mg/kg	0.0500
Dibromofluoromethane Rep., mg/kg	0.0398
Dibromofluoromethane Theo., mg/kg	0.0500

CHAIN OF CUSTODY RECORD

VOC Log Number G9102118

Client name: HANESS ENV. SERVICES	Project or PO#: 57298
Address: 1101 E. SPRING ST	Phone #: 310-595-4555
City, State, Zip: LONG BEACH, CA 90806	Report attention: GABRIELE BAADER
Sampled by: GABRIELE BAADER	

Analyses required: EPA 8240; EPA 8021; TRACE METALS; TCLP; Hazardous sample / Special handling required

Trace Metals = Al, Ba, Cd, Cr, Cu, Ni, Zn, As, Pb, Hg

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	EPA 8240	EPA 8021	TRACE METALS	TCLP				Hazardous sample / Special handling required	Remarks
1	2-6-97	8:20	SO	MW2-4 @ 5'	1									HOLD
2	2-6-97	8:30	SO	MW2-4 @ 10'	1									HOLD
3	2-6-97	8:33	SO	MW2-4 @ 15'	1									HOLD
4	2-6-97	8:38	SO	MW2-4 @ 20'	1									HOLD
5	2-6-97	8:44	SO	MW2-4 @ 25'	1									HOLD
6	2-6-97	9:50	SO	MW2-4 @ 30'	1	X								
7	2-6-97	8:55	SO	MW2-4 @ 35'	1									HOLD
8	2-6-97	8:59	SO	MW2-4 @ 40'	1									HOLD
9	2-6-97	9:05	SO	MW2-4 @ 45'	1	X								
10	2-6-97	9:12	SO	MW2-4 @ 50'	1									HOLD
11	2-6-97	9:18	SO	MW2-4 @ 55'	1									HOLD
12	2-6-97	9:07	SO	MW2-4 BIN	1	X	X	X	X					

Remarks (rows 3–7): ALL TEST MUST BE EPA Standard

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	GABRIELE BAADER	HANESS ENV. SERVICES	2-6-97	4:15
Received by	[signature]	CHARLES HOLMES	VOC Analytical	2-6-97	4:15 p
Relinquished by	[signature]	CHARLES HOLMES	VOC Analytical	2-6-97	5:10 p
Received by	[signature]	K. Pham	VOC	2/6/97	510
Relinquished by					
Received by Laboratory					

VOC ANALYTICAL

[illegible]

801 Western Avenue, Glendale, CA 91201 (818) 247-5737

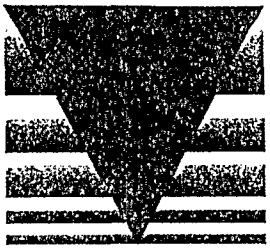
1700 Gene Autry Way, Anaheim, CA 92805 (714) 978-0113

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense

Disposal arrangements ____________________

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum WW—Wastewater

ANALYTICAL REPORT



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-398

Received: 14 FEB 97

Mailed: MAR - 1 1997

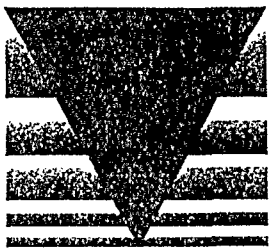
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-1	MW2-3 BIN	14 FEB 97

PARAMETER	02-398-1
Digestion (3050), Date	02/16/97
Furnace Digestion (3050), Date	02/16/97
Arsenic (7060), mg/kg	2.7
Antimony (6010), mg/kg	<10
Barium (6010), mg/kg	66
Beryllium (6010), mg/kg	0.69
Cadmium (6010), mg/kg	20
Chromium (6010), mg/kg	17
Cobalt (6010), mg/kg	11
Copper (6010), mg/kg	28
Lead (6010), mg/kg	10
Mercury (7471), mg/kg	0.10
Molybdenum (6010), mg/kg	<2
Nickel (6010), mg/kg	10
Selenium (7740), mg/kg	<0.4
Silver (6010), mg/kg	<1
Thallium (6010), mg/kg	<7
Vanadium (6010), mg/kg	46
Zinc (6010), mg/kg	54
TRPH (418.1), mg/kg	33



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-398

Received: 14 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-1	MW2-3 BIN	14 FEB 97

PARAMETER	02-398-1
Vol.Pri.Poll. (8260)	
Date Analyzed	02/24/97
Dilution Factor, Times	1
1,1,1,2-Tetrachloroethane, mg/kg	<0.005
1,1,1-Trichloroethane, mg/kg	<0.005
1,1,2,2-Tetrachloroethane, mg/kg	<0.005
1,1,2-Trichloroethane, mg/kg	<0.005
1,1-Dichloroethane, mg/kg	<0.005
1,1-Dichloroethene, mg/kg	<0.005
1,1-Dichloropropene, mg/kg	<0.005
1,2,3-Trichlorobenzene, mg/kg	<0.005
1,2,3-Trichloropropane, mg/kg	<0.005
1,2,4-Trichlorobenzene, mg/kg	<0.005
1,2,4-Trimethylbenzene, mg/kg	<0.005
1,2-Dibromo-3-chloropropane, mg/kg	<0.005
1,2-Dibromoethane, mg/kg	<0.005
1,2-Dichloroethane, mg/kg	<0.005
1,2-Dichlorobenzene, mg/kg	<0.005
1,2-Dichloropropane, mg/kg	<0.005
1,3,5-Trimethylbenzene, mg/kg	<0.005
1,3-Dichlorobenzene, mg/kg	<0.005
1,3-Dichloropropane, mg/kg	<0.005
1,4-Dichlorobenzene, mg/kg	<0.005
2,2-Dichloropropane, mg/kg	<0.005
2-Chlorotoluene, mg/kg	<0.005
2-Hexanone, mg/kg	<0.05
4-Chlorotoluene, mg/kg	<0.005

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-1	MW2-3 BIN	14 FEB 97

PARAMETER	02-398-1
Acetone, mg/kg	<0.1
Bromobenzene, mg/kg	<0.005
Bromochloromethane, mg/kg	<0.005
Bromodichloromethane, mg/kg	<0.005
Bromomethane, mg/kg	<0.005
Benzene, mg/kg	<0.005
Bromoform, mg/kg	<0.005
Chlorobenzene, mg/kg	<0.005
Carbon Tetrachloride, mg/kg	<0.005
Chloroethane, mg/kg	<0.005
Chloroform, mg/kg	<0.005
Chloromethane, mg/kg	<0.005
Carbon Disulfide, mg/kg	<0.01
Dibromochloromethane, mg/kg	<0.005
Dibromomethane, mg/kg	<0.005
Dichlorodifluoromethane, mg/kg	<0.005
Ethylbenzene, mg/kg	<0.005
Freon 113, mg/kg	<0.01
Hexachlorobutadiene, mg/kg	<0.005
Isopropylbenzene, mg/kg	<0.005
Methyl ethyl ketone, mg/kg	<0.03
Methyl isobutyl ketone, mg/kg	<0.03
Methylene chloride, mg/kg	<0.005
N-Butylbenzene, mg/kg	<0.005
N-Propylbenzene, mg/kg	<0.005
Naphthalene, mg/kg	<0.005
Styrene, mg/kg	<0.005

LOG NO: G97-02-398

Received: 14 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, NON-AQUEOUS SAMPLES	DATE SAMPLED
02-398-1	MW2-3 BIN	14 FEB 97

PARAMETER	02-398-1
Trichloroethene, mg/kg	<0.005
Trichlorofluoromethane, mg/kg	<0.005
Toluene, mg/kg	<0.005
Tetrachloroethene, mg/kg	<0.005
Vinyl acetate, mg/kg	<0.05
Vinyl chloride, mg/kg	<0.005
cis-1,2-Dichloroethene, mg/kg	<0.005
cis-1,3-Dichloropropene, mg/kg	<0.005
m- and p-Xylene Isomers, mg/kg	<0.005
o-Xylene, mg/kg	<0.005
p-Isopropyl toluene, mg/kg	<0.005
sec-Butylbenzene, mg/kg	<0.005
trans-1,2-Dichloroethene, mg/kg	<0.005
trans-1,3-Dichloropropene, mg/kg	<0.005
tert-Butylbenzene, mg/kg	<0.005
Other Vol.Pri.Poll. (8260)	---
Surrogates **	
4-Bromofluorobenzene Rep., mg/kg	0.0509
4-Bromofluorobenzene Theo., mg/kg	0.0500
Toluene-d8 Reported, mg/kg	0.0542
Toluene-d8 Theo., mg/kg	0.0500
Dibromofluoromethane Rep., mg/kg	0.0512
Dibromofluoromethane Theo., mg/kg	0.0500

CHAIN OF CUSTODY RECORD

BCA Log Number 071-02-018

Client name	Project or PO#
HANESS ENV. SERVICES	51298
Address: 1101 E. SPRING ST	Phone #: 310-595-4555
City, State, Zip: LONG BEACH, CA 90806	Report attention: GABRIELE BAADER

Sampled by: GABRIELE BAADER

Analyses required: CAM METALS; EPA 418.1; EPA 8260; Hazardous sample / Special handling required

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	CAM METALS	EPA 418.1	EPA 8260					Hazardous sample Special handling required	Remarks
1	2-14-97	8:25		MW2-3 @5'	1									HOLD
2	2-14-97	8:30		MW2-3 @10'	1									HOLD
3	2-14-97	8:33		MW2-3 @15'	1									HOLD
4	2-14-97	8:35		MW2-3 @20'	1									HOLD
5	2-14-97	8:40		MW2-3 @25'	1									HOLD
6	2-14-97	8:44		MW2-3 @30'	1									HOLD
7	2-14-97	8:48		MW2-3 @35'	1									HOLD
8	~~MW2-3 BIN~~ 2-14-97	8:53		MW2-3 BIN	1	X	X	X						

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	GABRIELE BAADER	HANESS ENV.	2-14-97	12:55
Received by	[signature]	MARIAE NICHOLSON	BCA / VOC	2-14-97	12:55
Relinquished by	[signature]	MARIAE NICHOLSON	BCA / VOC	2-14-97	3:05 PM
Received by	[signature]	Sharon Malone	VOC	2-14-97	1505
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

[illegible] Ruby Quay Circle [illegible] (310) 625 3894
[ ] 801 Western Avenue, Glendale, CA 91201 (818) 247 5737
[ ] 1200 Gene Autry Way, Anaheim, CA 92805 (714) 978 0113

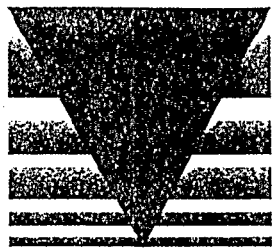
Note: Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: __________

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum WW—Wastewater

APPENDIX F

GROUNDWATER SAMPLE ANALYTICAL RESULTS WITH CHAIN-OF-CUSTODY LOGS



Our Quality Control Is Your Quality Assurance

ANALYTICAL REPORT

LOG NO: G97-02-738

Received: 28 FEB 97

Mailed:

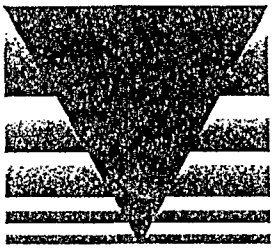
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-738-1	MW2-3A (Original)	28 FEB 97
02-738-2	MW2-3B (Duplicate)	28 FEB 97

PARAMETER	02-738-1	02-738-2
Volatile Organics (8021A)		
Date Analyzed	03/10/97	03/10/97
Dilution Factor, Times	1	1
1,1,1,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,1-Trichloroethane, ug/L	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethene, ug/L	<0.5	<0.5
1,1-Dichloropropene, ug/L	<0.5	<0.5
1,2,3-Trichlorobenzene, ug/L	<0.5	<0.5
1,2,3-Trichloropropane, ug/L	<0.5	<0.5
1,2,4-Trichlorobenzene, ug/L	<0.5	<0.5
1,2,4-Trimethylbenzene, ug/L	<0.5	<0.5
1,2-Dibromo-3-chloropropane, ug/L	<0.5	<0.5
1,2-Dibromoethane, ug/L	<0.5	<0.5
1,2-Dichloroethane, ug/L	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5
1,3,5-Trimethylbenzene, ug/L	<0.5	<0.5
1,3-Dichlorobenzene, ug/L	<0.5	<0.5
1,3-Dichloropropane, ug/L	<0.5	<0.5
1,4-Dichlorobenzene, ug/L	<0.5	<0.5
2,2-Dichloropropane, ug/L	<0.5	<0.5
2-Chloroethylvinylether, ug/L	<0.5	<0.5
2-Chlorotoluene, ug/L	<0.5	<0.5
4-Chlorotoluene, ug/L	<0.5	<0.5



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-738

Received: 28 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-738-1	MW2-3A (Original)	28 FEB 97
02-738-2	MW2-3B (Duplicate)	28 FEB 97

PARAMETER	02-738-1	02-738-2
Bromobenzene, ug/L	<0.5	<0.5
Bromochloromethane, ug/L	<0.5	<0.5
Bromodichloromethane, ug/L	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5
Benzene, ug/L	<0.5	<0.5
Bromoform, ug/L	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5
Chloroform, ug/L	1.3	1.2
Chloromethane, ug/L	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5
Dibromomethane, ug/L	<0.5	<0.5
Dichlorodifluoromethane, ug/L	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5
Freon 113, ug/L	<0.5	<0.5
Hexachlorobutadiene, ug/L	<0.5	<0.5
Isopropylbenzene, ug/L	<0.5	<0.5
Methylene chloride, ug/L	<0.5	<0.5
N-Butylbenzene, ug/L	<0.5	<0.5
N-Propylbenzene, ug/L	<0.5	<0.5
Naphthalene, ug/L	<0.5	<0.5
Styrene, ug/L	<0.5	<0.5
Trichloroethene, ug/L	<0.5	<0.5
Trichlorofluoromethane, ug/L	<0.5	<0.5
Toluene, ug/L	1.2	1.2

LOG NO: G97-02-738

Received: 28 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-738-1	MW2-3A (Original)	28 FEB 97
02-738-2	MW2-3B (Duplicate)	28 FEB 97

PARAMETER	02-738-1	02-738-2
Tetrachloroethene, ug/L	1.1	1.1
Vinyl chloride, ug/L	<0.5	<0.5
Total Xylene Isomers, ug/L	<1	<1
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5
m- and p-Xylene Isomers, ug/L	0.95	0.95
o-Xylene, ug/L	<0.5	<0.5
p-Isopropyl toluene, ug/L	<0.5	<0.5
sec-Butylbenzene, ug/L	<0.5	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5
tert-Butylbenzene, ug/L	<0.5	<0.5
Other Volatile Organics (8021A)	---	---
Surrogates **		
Bromochloromethane Reported, ug/L	56.7	55.8
Bromochloromethane Theoretical, ug/L	50.0	50.0
a,a,a-Trifluorotoluene Rep., ug/L	50.5	48.9
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0

Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-738

Received: 28 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

R. Galoustian for GG

Greta Galoustian, Laboratory Director

: ORDER PLACED FOR CLIENT: Maness Environmental Services 9702738 :
: BC ANALYTICAL : GLEN LAB : 08:27:03 12 MAR 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9702738*1	MW2-3A (Original)	VAH.8021	03.10.97	8021A	536-28	972025	8171
9702738*2	MW2-3B (Duplicate)	VAH.8021	03.10.97	8021A	536-28	972025	8171

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

AQUEOUS SAMPLES	METHOD BLANK				LAB CONTROL								MATRIX QC									
					LCS		LCSD				RPD	RPD	MS		MSD				RPD	RPD		
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VAH*972025 Method: 8021A - 8010/8020 in series, GC, ELCD;PID																						
1,1,1,2-Tetrachloroethane	-	0	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	-	0	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	0.11	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	0	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	0	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	0	-	-	140	-	-	-	-	-	-	-	-	139	-	135	-	-	-	3	-	-
1,1-Dichloropropene	-	0	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	0.87	-	-	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	0	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	0.40	-	-	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	-	0	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	0.43	-	-	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	-	0	-	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	0	-	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	0.10	0.5	-	94	-	-	-	75	121	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	0	-	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	-	0	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	0.12	0.5	-	91	-	-	-	78	123	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	0	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	0.16	0.5	-	97	-	-	-	77	123	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	0	-	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethylvinylether	-	0	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	-	0	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	0	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	-	0	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	0	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	0	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	-	0	-	-	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	0.078	0.5	-	99	-	-	-	80	126	-	-	-	97	-	95	-	67	141	3	20	-
Bromoform	-	0	-	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	0	0.5	-	97	-	-	-	80	122	-	-	-	94	-	93	-	67	147	1	25	-
Carbon Tetrachloride	-	0	-	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	0	-	-	134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	0	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	-	0	-	-	298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	0	-	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	-	0	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AQUEOUS SAMPLES		METHOD BLANK			LAB CONTROL								MATRIX QC								
					LCS		LCSD				RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VAH*972025 Method: 8021A - 8010/8020 in series, GC, ELCD;PID, con't																						
Dichlorodifluoromethane	ug/L	0	0.5	-	120	-	-	-	1	157	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	0.090	0.5	-	91	-	-	-	81	122	-	-	-	-	-	-	-	-	-	-	-	-
Freon 113	-	0	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	0.72	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	0	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	0	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	-	0.080	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	-	0	-	-	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	0.87	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	-	0	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	0	-	-	100	-	-	-	-	-	-	-	-	103	-	101	-	-	-	2	-	-
Trichlorofluoromethane	-	0	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	0.21	0.5	-	95	-	-	-	81	125	-	-	-	94	-	92	-	74	133	2	21	-
Tetrachloroethene	-	0	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	0	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylene Isomers	-	0.18	1	-	276	Q	-	-	84	118	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	0	-	-	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	0	-	-	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m- and p-Xylene Isomers	-	0.21	-	-	185	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	0.088	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyl toluene	-	0	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	-	0	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	0	-	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	0	-	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	-	0	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Bromochloromethane]	Percent	120	-	-	100	-	-	-	-	-	-	-	-	104	-	99	-	-	-	-	-	-
[a,a,a-Trifluorotoluene]	Percent	101	-	-	102	-	-	-	77	130	-	-	-	100	-	100	-	77	130	-	-	-

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 08:27:14 12 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702738*1							
8021A	Bromochloromethane	972025	03/10/97	56.7	50.0	113	
	a,a,a-Trifluorotoluene Re	972025	03/10/97	50.5	50.0	101	
9702738*2							
8021A	Bromochloromethane	972025	03/10/97	55.8	50.0	112	
	a,a,a-Trifluorotoluene Re	972025	03/10/97	48.9	50.0	98	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 08:27:16 12 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702738*2*R1							
8021A	Bromochloromethane	972025	03/10/97	55.8	50.0	112	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	48.9	50.0	98	
9702738*2*S1							
8021A	Bromochloromethane	972025	03/10/97	104	100	104	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	49.8	50.0	100	
9702738*2*S2							
8021A	Bromochloromethane	972025	03/10/97	99.4	100	99	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	49.9	50.0	100	
9702738*2*T							
8021A	Bromochloromethane	972025	03/10/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	50.0	50.0	100	
B703714*1*MB							
8021A	Bromochloromethane	972025	03/10/97	60.1	50.0	120	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	50.5	50.0	101	
C7031349*1*LC							
8021A	Bromochloromethane	972025	03/10/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	51.0	50.0	102	
C7031349*1*LT							
8021A	Bromochloromethane	972025	03/10/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972025	03/10/97	50.0	50.0	100	

CHAIN OF CUSTODY RECORD

BCA Log Number 49102738

Client name: MANESS ENV. SERV.	Project or PO#: 51298
Address: 1101 E. SPRING ST	Phone #: (562) 595-4555
City, State, Zip: LONG BEACH, CA 90806	Report attention: G. BAADER

Sampled by:

Analyses required: EPA 8021; Hazardous sample Special handling required

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	EPA 8021							Hazardous sample Special handling required	Remarks
01	2-28-97	4:17		MW2-3A (ORIGINAL)	2	X								
02	2-28-97	4:20		MW2-3B (DUPLICATE)	2	X								

	Signature	Print Name	Company	Date	Time
Relinquished by	G. Baader	G. BAADER	MANESS	2-28-97	4:25
Received by	Marie E. Nicholson	MARIE E NICHOLSON	BCA/VOC	2-28-97	4:25PM
Relinquished by	Marie E. Nicholson	MARIE E NICHOLSON	BCA/VOC	2-28-97	5:10PM
Received by	[illegible]	L. Pham	VOC	2/28/97	510
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

[ ] 1085 Clary Circle, [illegible] CA 945[illegible] (510) 825 3894
[ ] 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
[ ] [illegible] CA 92[illegible] (714) 978 0113

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense

Disposal arrangements: ______

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum WW—Wastewater

ANALYTICAL REPORT

Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

Mailed:

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-1	MW2-4A	20 FEB 97
02-532-2	MW2-4B	20 FEB 97

PARAMETER	02-532-1	02-532-2
Volatile Organics (8021A)		
Date Analyzed	02/26/97	02/26/97
Dilution Factor, Times	1	1
1,1,1,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,1-Trichloroethane, ug/L	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethene, ug/L	<0.5	<0.5
1,1-Dichloropropene, ug/L	<0.5	<0.5
1,2,3-Trichlorobenzene, ug/L	<0.5	<0.5
1,2,3-Trichloropropane, ug/L	<0.5	<0.5
1,2,4-Trichlorobenzene, ug/L	<0.5	<0.5
1,2,4-Trimethylbenzene, ug/L	<0.5	<0.5
1,2-Dibromo-3-chloropropane, ug/L	<0.5	<0.5
1,2-Dibromoethane, ug/L	<0.5	<0.5
1,2-Dichloroethane, ug/L	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5
1,3,5-Trimethylbenzene, ug/L	<0.5	<0.5
1,3-Dichlorobenzene, ug/L	<0.5	<0.5
1,3-Dichloropropane, ug/L	<0.5	<0.5
1,4-Dichlorobenzene, ug/L	<0.5	<0.5
2,2-Dichloropropane, ug/L	<0.5	<0.5
2-Chloroethylvinylether, ug/L	<0.5	<0.5
2-Chlorotoluene, ug/L	<0.5	<0.5
4-Chlorotoluene, ug/L	<0.5	<0.5

LOG NO: G97-02-532

Received: 20 FEB 97

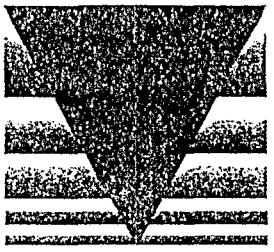
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-1	MW2-4A	20 FEB 97
02-532-2	MW2-4B	20 FEB 97

PARAMETER	02-532-1	02-532-2
Bromobenzene, ug/L	<0.5	<0.5
Bromochloromethane, ug/L	<0.5	<0.5
Bromodichloromethane, ug/L	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5
Benzene, ug/L	<0.5	<0.5
Bromoform, ug/L	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5
Chloroform, ug/L	<0.5	<0.5
Chloromethane, ug/L	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5
Dibromomethane, ug/L	<0.5	<0.5
Dichlorodifluoromethane, ug/L	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5
Freon 113, ug/L	<0.5	<0.5
Hexachlorobutadiene, ug/L	<0.5	<0.5
Isopropylbenzene, ug/L	<0.5	<0.5
Methylene chloride, ug/L	<0.5	<0.5
N-Butylbenzene, ug/L	<0.5	<0.5
N-Propylbenzene, ug/L	<0.5	<0.5
Naphthalene, ug/L	<0.5	<0.5
Styrene, ug/L	<0.5	<0.5
Trichloroethene, ug/L	<0.5	<0.5
Trichlorofluoromethane, ug/L	<0.5	<0.5
Toluene, ug/L	<0.5	<0.5



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LOG NO: G97-02-532

Received: 20 FEB 97

Ms. Gabriele Baader
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Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-1	MW2-4A	20 FEB 97
02-532-2	MW2-4B	20 FEB 97

PARAMETER	02-532-1	02-532-2
Tetrachloroethene, ug/L	<0.5	<0.5
Vinyl chloride, ug/L	<0.5	<0.5
Total Xylene Isomers, ug/L	<1	<1
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5
m- and p-Xylene Isomers, ug/L	<0.5	<0.5
o-Xylene, ug/L	<0.5	<0.5
p-Isopropyl tqluene, ug/L	<0.5	<0.5
sec-Butylbenzene, ug/L	<0.5	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5
tert-Butylbenzene, ug/L	<0.5	<0.5
Other Volatile Organics (8021A)	---	---
Surrogates **		
Bromochloromethane Reported, ug/L	55.2	56.0
Bromochloromethane Theoretical, ug/L	50.0	50.0
a,a,a-Trifluorotoluene Rep., ug/L	49.7	49.1
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0

Our Quality Control Is Your Quality Assurance

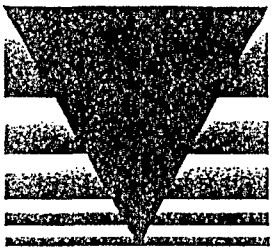
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-3	MW2-4D Rinsate Blank	20 FEB 97

PARAMETER	02-532-3
Volatile Organics (8021A)	
Date Analyzed	02/26/97
Dilution Factor, Times	1
1,1,1,2-Tetrachloroethane, ug/L	<0.5
1,1,1-Trichloroethane, ug/L	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5
1,1,2-Trichloroethane, ug/L	<0.5
1,1-Dichloroethane, ug/L	<0.5
1,1-Dichloroethene, ug/L	<0.5
1,1-Dichloropropene, ug/L	<0.5
1,2,3-Trichlorobenzene, ug/L	<0.5
1,2,3-Trichloropropane, ug/L	<0.5
1,2,4-Trichlorobenzene, ug/L	<0.5
1,2,4-Trimethylbenzene, ug/L	<0.5
1,2-Dibromo-3-chloropropane, ug/L	<0.5
1,2-Dibromoethane, ug/L	<0.5
1,2-Dichloroethane, ug/L	<0.5
1,2-Dichlorobenzene, ug/L	<0.5
1,2-Dichloropropane, ug/L	<0.5
1,3,5-Trimethylbenzene, ug/L	<0.5
1,3-Dichlorobenzene, ug/L	<0.5
1,3-Dichloropropane, ug/L	<0.5
1,4-Dichlorobenzene, ug/L	<0.5
2,2-Dichloropropane, ug/L	<0.5
2-Chloroethylvinylether, ug/L	<0.5
2-Chlorotoluene, ug/L	<0.5
4-Chlorotoluene, ug/L	<0.5



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

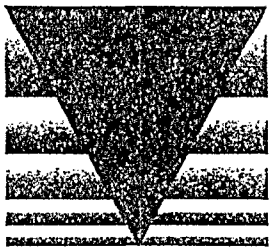
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-3	MW2-4D Rinsate Blank	20 FEB 97

PARAMETER	02-532-3				
Bromobenzene, ug/L	<0.5				
Bromochloromethane, ug/L	<0.5				
Bromodichloromethane, ug/L	<0.5				
Bromomethane, ug/L	<0.5				
Benzene, ug/L	<0.5				
Bromoform, ug/L	<0.5				
Chlorobenzene, ug/L	<0.5				
Carbon Tetrachloride, ug/L	<0.5				
Chloroethane, µg/L	<0.5				
Chloroform, ug/L	<0.5				
Chloromethane, ug/L	<0.5				
Dibromochloromethane, ug/L	0.86				
Dibromomethane, ug/L	<0.5				
Dichlorodifluoromethane, ug/L	<0.5				
Ethylbenzene, ug/L	<0.5				
Freon 113, ug/L	<0.5				
Hexachlorobutadiene, ug/L	<0.5				
Isopropylbenzene, ug/L	<0.5				
Methylene chloride, ug/L	<0.5				
N-Butylbenzene, ug/L	<0.5				
N-Propylbenzene, ug/L	<0.5				
Naphthalene, ug/L	<0.5				
Styrene, ug/L	<0.5				
Trichloroethene, ug/L	<0.5				
Trichlorofluoromethane, ug/L	<0.5				
Toluene, ug/L	<0.5				
Tetrachloroethene, ug/L	<0.5				



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

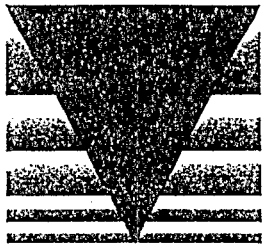
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-3	MW2-4D Rinsate Blank	20 FEB 97

PARAMETER	02-532-3
Vinyl chloride, ug/L	<0.5
Total Xylene Isomers, ug/L	<1
cis-1,2-Dichloroethene, ug/L	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5
m- and p-Xylene Isomers, ug/L	<0.5
o-Xylene, ug/L	<0.5
p-Isopropyl toluene, ug/L	<0.5
sec-Butylbenzene, ug/L	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5
tert-Butylbenzene, ug/L	<0.5
Other Volatile Organics (8021A)	---
Surrogates **	
Bromochloromethane Reported, ug/L	54.1
Bromochloromethane Theoretical, ug/L	50.0
a,a,a-Trifluorotoluene Rep., ug/L	49.5
a,a,a-Trifluorotoluene Th., ug/L	50.0



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

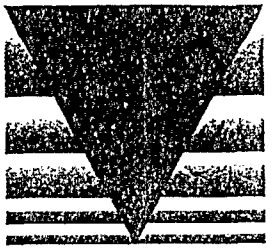
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-4	MW2-4C	20 FEB 97

PARAMETER	02-532-4
Sample Held, Not Analyzed	HOLD



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

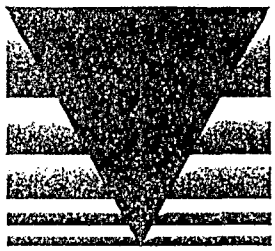
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-5	MW2-4E Trip Blank	20 FEB 97

PARAMETER	02-532-5
Volatile Organics (8021A)	
Date Analyzed	02/26/97
Dilution Factor, Times	1
1,1,1,2-Tetrachloroethane, ug/L	<0.5
1,1,1-Trichloroethane, ug/L	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5
1,1,2-Trichloroethane, ug/L	<0.5
1,1-Dichloroethane, ug/L	<0.5
1,1-Dichloroethene, ug/L	<0.5
1,1-Dichloropropene, ug/L	<0.5
1,2,3-Trichlorobenzene, ug/L	<0.5
1,2,3-Trichloropropane, ug/L	<0.5
1,2,4-Trichlorobenzene, ug/L	<0.5
1,2,4-Trimethylbenzene, ug/L	<0.5
1,2-Dibromo-3-chloropropane, ug/L	<0.5
1,2-Dibromoethane, ug/L	<0.5
1,2-Dichloroethane, ug/L	<0.5
1,2-Dichlorobenzene, ug/L	<0.5
1,2-Dichloropropane, ug/L	<0.5
1,3,5-Trimethylbenzene, ug/L	<0.5
1,3-Dichlorobenzene, ug/L	<0.5
1,3-Dichloropropane, ug/L	<0.5
1,4-Dichlorobenzene, ug/L	<0.5
2,2-Dichloropropane, ug/L	<0.5
2-Chloroethylvinylether, ug/L	<0.5
2-Chlorotoluene, ug/L	<0.5
4-Chlorotoluene, ug/L	<0.5



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LOG NO: G97-02-532

Received: 20 FEB 97

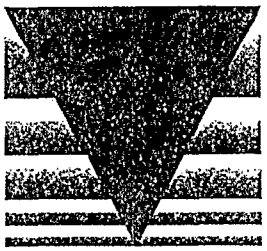
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-5	MW2-4E Trip Blank	20 FEB 97

PARAMETER	02-532-5
Bromobenzene, ug/L	<0.5
Bromochloromethane, ug/L	<0.5
Bromodichloromethane, ug/L	<0.5
Bromomethane, ug/L	<0.5
Benzene, ug/L	<0.5
Bromoform, ug/L	<0.5
Chlorobenzene, ug/L	<0.5
Carbon Tetrachloride, ug/L	<0.5
Chloroethane, ug/L	<0.5
Chloroform, ug/L	<0.5
Chloromethane, ug/L	<0.5
Dibromochloromethane, ug/L	<0.5
Dibromomethane, ug/L	<0.5
Dichlorodifluoromethane, ug/L	<0.5
Ethylbenzene, ug/L	<0.5
Freon 113, ug/L	<0.5
Hexachlorobutadiene, ug/L	<0.5
Isopropylbenzene, ug/L	<0.5
Methylene chloride, ug/L	<0.5
N-Butylbenzene, ug/L	<0.5
N-Propylbenzene, ug/L	<0.5
Naphthalene, ug/L	<0.5
Styrene, ug/L	<0.5
Trichloroethene, ug/L	<0.5
Trichlorofluoromethane, ug/L	<0.5
Toluene, ug/L	<0.5
Tetrachloroethene, ug/L	<0.5



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

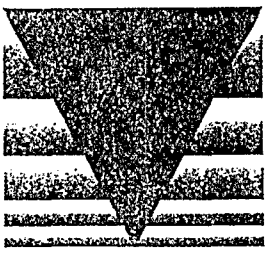
Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-5	MW2-4E Trip Blank	20 FEB 97

PARAMETER	02-532-5
Vinyl chloride, ug/L	<0.5
Total Xylene Isomers, ug/L	<1
cis-1,2-Dichloroethene, ug/L	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5
m- and p-Xylene Isomers, ug/L	<0.5
o-Xylene, ug/L	<0.5
p-Isopropyl toluene, ug/L	<0.5
sec-Butylbenzene, ug/L	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5
tert-Butylbenzene, ug/L	<0.5
Other Volatile Organics (8021A)	---
Surrogates **	
Bromochloromethane Reported, ug/L	58.0
Bromochloromethane Theoretical, ug/L	50.0
a,a,a-Trifluorotoluene Rep., ug/L	50.9
a,a,a-Trifluorotoluene Th., ug/L	50.0



Our Quality Control Is Your Quality Assurance

LOG NO: G97-02-532

Received: 20 FEB 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Project: 51298

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-532-6	MW2-4F Field Blank	20 FEB 97

PARAMETER	02-532-6
Sample Held, Not Analyzed	HOLD

Greta Galoustian, Laboratory Director

: ORDER PLACED FOR CLIENT: Maness Environmental Services 9702532 :
: BC ANALYTICAL : GLEN LAB : 10:16:11 07 MAR 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9702532*1	MW2-4A	VAH.8021	02.26.97	8021A	536-28	972019	8171
9702532*2	MW2-4B	VAH.8021	02.26.97	8021A	536-28	972019	8171
9702532*3	MW2-4D Rinsate Blank	VAH.8021	02.26.97	8021A	536-28	972019	8171
9702532*4	MW2-4C	HOLD	03.07.97				8165
9702532*5	MW2-4E Trip Blank	VAH.8021	02.26.97	8021A	536-28	972019	8171
9702532*6	MW2-4F Field Blank	HOLD	03.07.97				8165

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

AQUEOUS SAMPLES	METHOD BLANK				LAB CONTROL								MATRIX QC									
					LCS		LCSD					RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VAN*972019 Method: 8021A - 8010/8020 in series, GC, ELCD;PID																						
1,1,1,2-Tetrachloroethane	-	-	0	-	-	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	-	-	0	-	-	-	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	0	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	0	-	-	-	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	0	-	-	-	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	0	-	-	-	142	-	-	-	-	-	-	138	-	120	-	-	-	15	-	-
1,1-Dichloropropene	-	-	0	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	0	-	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	-	0	-	-	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	0	-	-	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	-	-	0	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	0	-	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	-	-	0	-	-	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	0	-	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	0	-	-	-	106	-	75	121	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	0	-	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	-	-	0	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	0	-	-	-	95	-	78	123	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	-	0	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	0	-	-	-	105	-	77	123	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	-	0	-	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethylvinylether	-	-	0	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	-	-	0	-	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	0	-	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	-	-	0	-	-	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	-	0	-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	0	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	-	-	0	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	0	-	-	-	104	-	80	126	-	-	-	99	-	96	-	67	141	3	20	-
Bromoform	-	-	0	-	-	-	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	0	-	-	-	98	-	80	122	-	-	-	98	-	96	-	67	147	2	25	-
Carbon Tetrachloride	-	-	0	-	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	-	0	-	-	-	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	0	-	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	-	-	0	-	-	-	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	0	-	-	-	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	-	-	0	-	-	-	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AQUEOUS SAMPLES	------ METHOD BLANK ------				---------- LAB CONTROL ----------								---------- MATRIX QC ----------									
					LCS		LCSD					RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VAN*972019 Method: 8021A - 8010/8020 in series, GC, ELCD;PID, con't																						
Dichlorodifluoromethane	ug/L	-	0	-	-	-	136	-	1	157	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	-	0	-	-	-	94	-	81	122	-	-	-	-	-	-	-	-	-	-	-	-
Freon 113	-	-	0	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	-	0	-	-	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	-	0	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	-	0	-	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	-	-	0	-	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	-	-	0	-	-	-	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	-	0	-	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	-	-	0	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	0	-	-	-	109	-	-	-	-	-	-	102	-	105	-	-	-	3	-	-
Trichlorofluoromethane	-	-	0	-	-	-	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	0	-	-	-	99	-	81	125	-	-	-	96	-	95	-	74	133	1	21	-
Tetrachloroethene	-	-	0	-	-	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	-	0	-	-	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylene Isomers	-	-	0	-	-	-	288	Q	84	118	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	0	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	0	-	-	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m- and p-Xylene Isomers	-	-	0	-	-	-	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	-	0	-	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyl toluene	-	-	0	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	-	-	0	-	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	0	-	-	-	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	0	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	-	-	0	-	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Bromochloromethane]	Percent	-	0	-	-	-	102	-	-	-	-	-	-	102	-	105	-	-	-	-	-	-
[a,a,a-Trifluorotoluene]	Percent	-	0	-	-	-	104	-	77	130	-	-	-	100	-	99	-	77	130	-	-	-

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 10:16:47 07 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702532*1							
8021A	Bromochloromethane	972019	02/26/97	55.2	50.0	110	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	49.7	50.0	99	
9702532*2							
8021A	Bromochloromethane	972019	02/26/97	56.0	50.0	112	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	49.1	50.0	98	
9702532*3							
8021A	Bromochloromethane	972019	02/26/97	54.1	50.0	108	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	49.5	50.0	99	
9702532*5							
8021A	Bromochloromethane	972019	02/26/97	58.0	50.0	116	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	50.9	50.0	102	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 10:16:49 07 MAR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9702532*1*R1							
8021A	Bromochloromethane	972019	02/26/97	55.2	50.0	110	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	49.7	50.0	99	
9702532*1*S1							
8021A	Bromochloromethane	972019	02/26/97	102	100	102	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	50.0	50.0	100	
9702532*1*S2							
8021A	Bromochloromethane	972019	02/26/97	105	100	105	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	49.4	50.0	99	
9702532*1*T							
8021A	Bromochloromethane	972019	02/26/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	50.0	50.0	100	
B703159*1*MB							
8021A	Bromochloromethane	972019	02/26/97	51.0	50.0	102	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	53.1	50.0	106	
C703313*1*LC							
8021A	Bromochloromethane	972019	02/26/97	102	100	102	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	51.9	50.0	104	
C703313*1*LT							
8021A	Bromochloromethane	972019	02/26/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972019	02/26/97	50.0	50.0	100	

Acronyms and Flag Definitions

Flag Definitions

J = Estimated value. Used for sample results greater than or equal to MDL, but less the PQL.

B = Blank contamination. Used when associated method blank concentration is greater than the PQL.

Q = Quality objectives were not met. Used for Method Blank, Laboratory Control Samples, Matrix Spikes, Matrix Duplicates and Surrogates.

* = Replicate values. Used when replicate results are entered into the MS/MSD column of the QC report.

NC = Not Calculated. Used when sample result is greater than two times the spike ammount added, or when extracted surrogates were diluted at least 1:10.

Acronyms

MB = Method Blank

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

%REC = Percent Recovery

FLG = Flag

LCL = Lower Control Limit

UCL = Upper Control Limit

RPD = Relative Percent Difference

CHAIN OF CUSTODY RECORD

VOC Log Number [illegible]

Client name	Project or PO#
HANESS ENV. SERV	51298

Address	Phone #
1101 EAST SPRING STREET	(562) 595-4555

City, State, Zip	Report attention
LONG BEACH, CA 90806	GABRIELE BAADER

Sampled by JEFF ENGELS

Analyses required: EPA 8021; Hazardous sample Special handling required

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	EPA 8021							Hazardous sample Special handling required	Remarks
01	2/20/97	4:20		MW2-4A ~~Eo~~	2	X								ORIGINAL
02	2/20/97	4:20		MW2-4B	2	X								DUPLICATE ~~HOL~~
03	2/20/97	4:20		MW2-4C	2	X								SPLIT HOLD
04	2/20/97	4:45		MW2-4D	2	X								RINSATE BLANK
05	2/20/97	4:20		MW2-4E	2	X								TRIP BLANK
06	2/20/97	4:15		MW2-4F	2	X								FIELD BLANK HOLD

NOTE: HOLD SPLIT + FIELD BLANK SAMPLE

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	GABRIELE BAADER	HANESS ENVIRONMENTAL	2/20/97	4:50
Received by	Marie E. Nicholson	MARIE NICHOLSON	BCA/VOC	2-20-97	4:50 P.M.
Relinquished by	Marie E. Nicholson	MARIE NICHOLSON	BCA/VOC	2-20-97	5:35 P.M.
Received by	[signature]	K Pham	VOC	2/20/97	535
Relinquished by					
Received by Laboratory					

VOC ANALYTICAL

[ ] 1085 Chary Circle, Concord, CA 94518 (510) 825-3894
[ ] 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
[ ] 1200 Gene Autry Way, Anaheim, CA 92805 (714) 978-0113
[illegible]

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: ______________________

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum WW—Wastewater

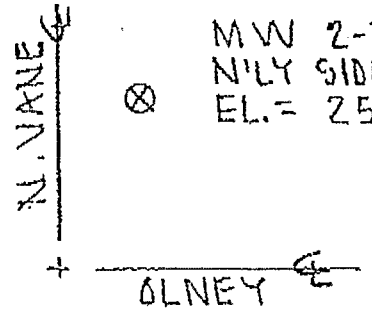
APPENDIX G

WELL SURVEY RESULTS

GILBERT ENGINEERING
4552 LINCOLN AVE. SUITE 206
CYPRESS, CA 90630
(562) 402-0196

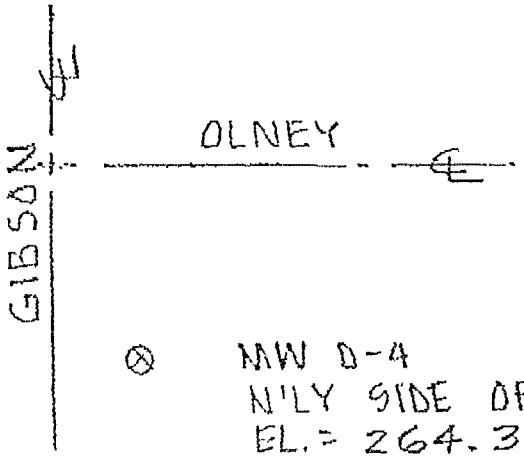
PREPARED FOR
MANNINGS ENVIRONMENTAL
P.O.BOX 90939
LONG BEACH, CA 90806
PROJ. NO. 51298

DATE OF SURVEY
2-21-97



BENCHMARK: CG 875
L&SPK E CB ELLIS LANE
20 FT E & 0.7 FT N &
PROD STEELE ST. MKD (WM)
ELEV.= 278.795

BENCHMARK: CG 3602
ROBM TAG 1 FT N BCR
70 FT N & 41 FT E &
INT. VALLEY BLVD & BALDWIN
AVE
ELEV.= 272.943 (1980)



97-10-08

JV RM
2/21/97

BM # CG 7602

TP # 1 EL = 100.00

BM EL = 99.41 (272.943) (#506)

TP # 2 EL = 91.71

RCE 18906 ?? ↑ GPS 9007 N 2710.565 (#507)
51 ∅ W E 4362.810

MW D-A N'LY SIDE OF CASING
EL = 90.770

N 2726.090
E 4263.915

EL = 264.30

J.V. RM
2/21/97

B.M. ROSEMEAD QUAD (1980)

℄ SPK E CO ELLIS LN 20' E ℄ & 0.7' N ℄
PROD. OF STEELE BM # CG875

EL = 278.795

T.P. #1 EL = 271.930 (#501)

TP #2 EL = 257.390 (#502)

℄ INT ELLIS / OLNEY (#503) N 7213.585
E 67.075

TP #3 EL = 256.465 (#504)

℄ INT OLNEY / N. VANE (#505) N 7621.890
E 611.445

MW2-3 N'LY END OF CASING (#506) N 7545.640
EL = 257.045 E 646.460